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# Distribution of Phytoplankton in Arkansas Lakes

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# Distribution of Phytoplankton in Arkansas Lakes

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This is a data report representing the species and abundance of phytoplankton in the 16 lakes sampled by the National Eutrophication Survey in the State of Arkansas. Results from the calculation of several water quality indices are also included (Nygaard's Trophic State Index, Palmer's Organic Pollution Index, and species diversity and abundance indices).

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# DISTRIBUTION OF PHYTOPLANKTON IN ARKANSAS LAKES

by

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## FOREWORD

Protection of the environment requires effective regulatory actions which are based on sound technical and scientific information. This information must include the quantitative description and linking of pollutant sources, transport mechanisms, interactions, and resulting effects on man and his environment. Because of the complexities involved, assessment of specific pollutants in the environment requires a total systems approach which transcends the media of air, water, and land. The Environmental Monitoring and Support Laboratory-Las Vegas contributes to the formation and enhancement of a sound monitoring data base for exposure assessment through programs designed to:

- develop and optimize systems and strategies for monitoring pollutants and their impact on the environment
- demonstrate new monitoring systems and technologies by applying them to fulfill special monitoring needs of the Agency's operating programs

This report presents the species and abundance of phytoplankton in the 16 lakes sampled by the National Eutrophication Survey in the State of Arkansas, along with results from the calculation of several commonly used biological indices of water quality and community structure. These data can be used to biologically characterize the study lakes, and as baseline data for future investigations. This report was written for use by Federal, State, and local governmental agencies concerned with water quality analysis, monitoring, and/or regulation. Private industry and individuals similarly involved with the biological aspects of water quality will find the document useful. For further information contact the Water and Land Quality Branch, Monitoring Operations Division.

George B. Morgan

George B. Morgan
Director
Environmental Monitoring and Support Laboratory
Las Vegas

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## INTRODUCTION

The collection and analysis of phytoplankton data were included in the National Eutrophication Survey in an effort to determine relationships between algal characteristics and trophic status of individual lakes.

During spring, summer, and fall of 1974, the Survey sampled 179 lakes in 10 States. Over 700 algal species and varieties were identified and enumerated from the 573 water samples examined.

This report presents the species and abundance of phytoplankton in the 16 lakes sampled in the State of Arkansas (Table 1). The Nygaard's Trophic State (Nygaard 1949), Palmer's Organic Pollution (Palmer 1969), and species diversity and abundance indices are also included.

TABLE 1. LAKES SAMPLED IN THE STATE OF ARKANSAS

| STORET | LAKE NAME | COUNTY |
|---|---|---|
| 0501 | Beaver Lake | Benton, Carroll, Washington |
| 0502 | Blackfish Lake | Crittenden, St. Francis |
| 0503 | Blue Mountain Lake | Logan, Yell |
| 0504 | Bull Shoals Lake | Baxter, Boone, Marion (Taney, Ozark in MO) |
| 0505 | Lake Catherine | Garland, Hot Spring |
| 0506 | Lake Chicot | Chicot |
| 0507 | DeGray Lake | Clark, Hot Spring |
| 0508 | Lake Erling | Lafayette |
| 0509 | Grand Lake | Chicot |
| 0510 | Lake Hamilton | Garland |
| 0511 | Millwood Lake | Hempstead, Howard, Little River, Sevier |

(Continued)

TABLE 1. LAKES SAMPLED IN THE STATE OF ARKANSAS (Continued)

| STORET | LAKE NAME | COUNTY |
|---|---|---|
| 0512 | Nimrod Lake | Perry, Yell |
| 0513 | Norfolk Lake | Baxter, Fulton (Ozark in MO) |
| 0514 | Lake Ouachita | Garland, Montgomery |
| 0515 | Table Rock Lake | Boone, Carroll (Barry, Taney in MO) |
| 0516 | Greer's Ferry Lake | Van Buren, Cleburne |

## MATERIALS AND METHODS

### LAKE AND SITE SELECTION

Lakes and reservoirs included in the Survey were selected through discussions with State water pollution agency personnel and U.S. Environmental Protection Agency Regional Offices (U.S. Environmental Protection Agency 1975). Screening and selection strongly emphasized lakes with actual or potential accelerated eutrophication problems. As a result, the selection was limited to lakes:

(1) impacted by one or more municipal sewage treatment plant outfalls either directly into the lake or by discharge to an inlet tributary within approximately 40 kilometers of the lake;

(2) 40 hectares or larger in size; and

(3) with a mean hydraulic retention time of at least 30 days.

Specific selection criteria were waived for some lakes of particular State interest.

Sampling sites for a lake were selected based on available information on lake morphometry, potential major sources of nutrient input, and on-site judgment of the field limnologist (U.S. Environmental Protection Agency 1975). Primary sampling sites were chosen to reflect the deepest portion of each major basin in a test lake. Where many basins were present, selection was guided by nutrient source information on hand. At each sampling site, a depth-integrated phytoplankton sample was taken. Depth-integrated samples were uniform mixtures of water from the surface to a depth of 15 feet (4.6 meters) or from the surface to the lower limit of the photic zone representing 1 percent of the incident light, whichever was greater. If the depth at the sampling site was less than 15 feet (4.6 meters), the sample was taken from just off the bottom to the surface. Normally, a lake was sampled three times in 1 year, providing information on spring, summer, and fall conditions.

### SAMPLE PREPARATION

To preserve the sample 4 milliliters (ml) of Acid-Lugol's solution (Prescott 1970) were added to each 130-ml sample from each site at the time of collection. The samples were shipped to the Environmental Monitoring and Support Laboratory, Las Vegas, Nevada, where equal volumes from each site

were mixed to form two 130-ml composite samples for a given lake. One composite sample was put into storage and the other was used for the examination.

Prior to examination, the composite samples were concentrated by the settling method. Solids were allowed to settle for at least 24 hours prior to siphoning off the supernate. The volume of the removed supernate and the volume of the remaining concentrate were measured and concentrations determined. A small (8-ml) library subsample of the concentrate was then taken. The remaining concentrate was gently agitated to resuspend the plankton and poured into a capped, graduated test tube. If a preliminary examination of a sample indicated the need for a more concentrated sample, the contents of the test tube were further concentrated by repeating the settling method. Final concentrations varied from 15 to 40 times the original.

Permanent slides were prepared from concentrated samples after analysis was complete. A ring of clear Karo® corn syrup with phenol (a few crystals of phenol were added to each 100 ml of syrup) was placed on a glass slide. A drop of superconcentate from the bottom of the test tube was placed in the ring. This solution was thoroughly mixed and topped with a coverglass. After the syrup at the edges of the coverglass had hardened, the excess was scraped away and the mount was sealed with clear fingernail polish. Permanent diatom slides were prepared by drying sample material on a coverglass, heating in a muffle furnace at 400° C for 45 minutes, and mounting in Hyrax®. Finally, the mounts were sealed with clear fingernail polish.

Backup samples, library samples, permanent sample slides, and Hyrax®-mounted diatom slides are being stored and maintained at the Environmental Monitoring and Support Laboratory-Las Vegas.

## EXAMINATION

The phytoplankton samples were examined with the aid of binocular compound microscopes. A preliminary examination was performed to precisely identify and list all forms encountered. The length of this examination varied depending on the complexity of the sample. An attempt was made to find and identify all of the forms present in each sample. Often forms were observed which could not be identified to species or to genus. Abbreviated descriptions were used to keep a record of these forms (e.g., lunate cell, blue-green filament, Navicula #1). Diatom slides were examined using a standard light microscope. If greater resolution was essential to accurately identify the diatoms, a phase-contrast microscope was used.

After the species list was compiled, phytoplankton were enumerated using a Neubauer Counting Chamber with a 40X objective lens and a 10X ocular lens. All forms within each field were counted. The count was continued until a minimum of 100 fields had been viewed, or until the dominant form had been observed a minimum of 100 times.

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## QUALITY CONTROL

Project phycologists performed internal quality control intercomparisons regularly on 7 percent of the species identifications and counts. Although an individual had primary responsibility for analyzing a sample, taxonomic problems were discussed among the phycologists.

Additional quality control checks were performed on the Survey samples by Dr. G. W. Prescott of the University of Montana at the rate of 5 percent. Quality control checks were made on 75 percent of these samples to verify species identifications while checks were made on the remaining 25 percent of the samples to verify genus counts. Presently, the agreement between quality control checks for species identification and genus enumerations is satisfactory.

## RESULTS

A phytoplankton species list for the State is presented in Appendix A. Appendix B summarizes all of the phytoplankton data collected from the State by the Survey. The latter is organized by lake, and includes an alphabetical phytoplankton species list with concentrations for individual species given by sampling date. Results from the application of several indices are presented (Nygaard's Trophic State, Palmer's Organic Pollution, and species diversity and abundance). Each lake has been assigned a four-digit STORET number. STORET (STOrage and RETrieval) is the U.S. Environmental Protection Agency's computer system which processes and maintains water quality data. The first two digits of the STORET number identify the State; the last two digits identify the lake.

### NYGAARD'S TROPHIC STATE INDICES

Five indices devised by Nygaard (1949) were proposed under the assumption that certain algal groups are indicative of levels of nutrient enrichment. These indices were calculated in order to aid in determining the surveyed lakes' trophic status. As a general rule, Cyanophyta, Euglenophyta, centric diatoms, and members of the Chlorococcales are found in waters that are eutrophic (rich in nutrients), while desmids and many pennate diatoms generally cannot tolerate high nutrient levels and so are found in oligotrophic waters (poor in nutrients).

In applying the indices to the Survey data, the number of taxa in each major group was determined from the species list for each sample. The ratios of these groups give numerical values which can be used as a biological index of water richness. The five indices and the ranges of values established for Danish lakes by Nygaard for each trophic state are presented in Table 2. The appropriate symbol, (E) eutrophic and (O) oligotrophic, follows each calculated value in the tables in Appendix B. A question mark (?) following a calculated value in these tables was entered when that value was within the range of both classifications.

### PALMER'S ORGANIC POLLUTION INDICES

Palmer (1969) analyzed reports from 165 authors and developed algal pollution indices for use in rating water samples with high organic pollution. Two lists of organic-pollution-tolerant forms were prepared, one containing 20 genera, the other, 20 species (Tables 3 and 4). Each form was assigned a pollution index number ranging from 1 for moderately tolerant

TABLE 2. NYGAARD'S TROPHIC STATE INDICES ADAPTED FROM HUTCHINSON (1967)

| Index | Calculation | Oligotrophic | Eutrophic |
|---|---|---|---|
| Myxophycean | $\frac{\text{Myxophyceae}}{\text{Desmideae}}$ | 0.0-0.4 | 0.1-3.0 |
| Chlorophycean | $\frac{\text{Chlorococcales}}{\text{Desmideae}}$ | 0.0-0.7 | 0.2-9.0 |
| Diatom | $\frac{\text{Centric Diatoms}}{\text{Pennate Diatoms}}$ | 0.0-0.3 | 0.0-1.75 |
| Euglenophyte | $\frac{\text{Euglenophyta}}{\text{Myxophyceae + Chlorococcales}}$ | 0.0-0.2 | 0.0-1.0 |
| Compound | $\frac{\text{Myxophyceae + Chlorococcales + Centric Diatoms + Euglenophyta}}{\text{Desmideae}}$ | 0.0-1.0 | 1.2-25 |

TABLE 3. ALGAL GENUS POLLUTION INDEX (Palmer 1969)

| Genus | Pollution Index |
|---|---|
| Anacystis | 1 |
| Ankistrodesmus | 2 |
| Chlamydomonas | 4 |
| Chlorella | 3 |
| Closterium | 1 |
| Cyclotella | 1 |
| Euglena | 5 |
| Gomphonema | 1 |
| Lepocinclis | 1 |
| Melosira | 1 |
| Micractinium | 1 |
| Navicula | 3 |
| Nitzschia | 3 |
| Oscillatoria | 5 |
| Pandorina | 1 |
| Phacus | 2 |
| Phormidium | 1 |
| Scenedesmus | 4 |
| Stigeoclonium | 2 |
| Synedra | 2 |

TABLE 4. ALGAL SPECIES POLLUTION INDEX (Palmer 1969)

| Species | Pollution Index |
|---|---|
| Ankistrodesmus falcatus | 3 |
| Arthrospira jenneri | 2 |
| Chlorella vulgaris | 2 |
| Cyclotella meneghiniana | 2 |
| Euglena gracilis | 1 |
| Euglena viridis | 6 |
| Gomphonema parvulum | 1 |
| Melosira varians | 2 |
| Navicula cryptocephala | 1 |
| Nitzschia acicularis | 1 |
| Nitzschia palea | 5 |
| Oscillatoria chlorina | 2 |
| Oscillatoria limosa | 4 |
| Oscillatoria princeps | 1 |
| Oscillatoria putrida | 1 |
| Oscillatoria tenuis | 4 |
| Pandorina morum | 3 |
| Scenedesmus quadricauda | 4 |
| Stigeoclonium tenue | 3 |
| Synedra ulna | 3 |

forms to 6 for extremely tolerant forms. Palmer based the index numbers on occurrence records and/or where emphasized by the authors as being especially tolerant of organic pollution.

In analyzing a water sample, any of the 20 genera or species of algae present in concentrations of 50 per milliliter or more are recorded. The pollution index numbers of the algae present are totaled, providing a genus score and a species score. Palmer determined that a score of 20 or more for either index can be taken as evidence of high organic pollution, while a score of 15 to 19 is taken as probable evidence of high organic pollution. Lower figures suggest that the organic pollution of the sample is not high, that the sample is not representative, or that some substance or factor interfering with algal persistence is present and active.

## SPECIES DIVERSITY AND ABUNDANCE INDICES

"Information content" of biological samples is being used commonly by biologists as a measure of diversity. Diversity in this connection means the degree of uncertainty attached to the specific identity of any randomly selected individual. The greater the number of taxa and the more equal their proportions, the greater the uncertainty, and hence, the diversity (Pielou 1966). There are several methods of measuring diversity, e.g., the formulas given by Brillouin (1962) and Shannon and Weaver (1963). The method which is appropriate depends on the type of biological sample on hand.

Pielou (1966) classifies the types of biological samples and gives the measure of diversity appropriate for each type. The Survey phytoplankton samples are what she classifies as larger samples (collections in Pielou's terminology) from which random subsamples can be drawn. According to Pielou, the average diversity per individual (H) for these types of samples can be estimated from the Shannon-Wiener formula (Shannon and Weaver 1963):

$$H = -\sum_{i=1}^{S} P_i \log_x P_i$$

where P is the proportion of the ith taxon in the sample, which is calculated from $n_i/N$; $n_i$ is the number of individuals per milliliter of the ith taxon; N is the total number of individuals per ml; and S is the total number of taxa. However, Basharin (1959) and Pielou (1966) have pointed out that H calculated from the subsample is a biased estimator of the sample H, and if this bias is to be accounted for, we must know the total number of taxa present in the sample since the magnitude of this bias depends on it.

Pielou (1966) suggests that if the number of taxa in the subsample falls only slightly short of the number in the larger sample, no appreciable error will result in considering S, estimated from the subsample, as being equal to the sample value. Even though considerable effort was made to find and identify all taxa, the Survey samples undoubtedly contain a fair number of rare phytoplankton taxa which were not encountered.

In the Shannon-Wiener formula, an increase in the number of taxa and/or an increase in the evenness of the distribution of individuals among taxa will increase the average diversity per individual from its minimal value of zero. Sager and Hasler (1969) found that the richness of taxa was of minor importance in determination of average diversity per individual for phytoplankton and they concluded that phytoplankton taxa in excess of the 10 to 15 most abundant ones have little effect on H. This was verified by our own calculations. Our counts are in number per milliliter and since logarithms to the base 2 were used in our calculations, H is expressed in units of bits per individual. When individuals of a taxon were so rare that they were not counted, a value of 1/130 per milliliter or 0.008 per milliliter was used in the calculations since at least one individual of the taxon must have been present in the collection.

A Survey sample for a given lake represents a composite of all phytoplankton collected at different sampling sites on the lake during a given sampling period. Since the number of samples (M) making up a composite is a function of both the complexity of the lake sampled and its size, it should affect the richness-of-taxa component of the diversity of our phytoplankton collections. The maximum diversity (MaxH) (i.e., when the individuals are distributed among the taxa as evenly as possible) was estimated from $\log_2 S$ (Pielou 1966), while the minimum diversity (MinH), was estimated from the formula:

$$\text{MinH} = -\frac{S-1}{N}\log_2\frac{1}{N} - \left[\frac{N-(S-1)}{N}\right]\log_2\left[\frac{N-(S-1)}{N}\right]$$

given by Zand (1976). The total diversity (D) was calculated from HN (Pielou 1966). Also given in Appendix B are L (the mean number of individuals per taxa per milliliter) and K (the number of individuals per milliliter of the most abundant taxon in the sample).

The evenness component of diversity (J) was estimated from H/MaxH (Pielou 1966). Relative evenness (RJ) was calculated from the formula:

$$\text{RJ} = \frac{\text{H-MinH}}{\text{MaxH-MinH}}$$

given by Zand (1976). Zand suggests that RJ be used as a substitute for both J and the redundancy expression given by Wilhm and Dorris (1968). As pointed out by Zand, the redundancy expression given by Wilhm and Dorris does not properly express what it is intended to show, i.e., the position of H in the range between MaxH and MinH. RJ may range from 0 to 1; being 1 for the most even samples and 0 for the least even samples.

Zand (1976) suggests that diversity indices be expressed in units of "sits", i.e., in logarithms to base S (where S is the total number of taxa in the sample) instead of in "bits", i.e., in logarithms to base 2. Zand points out that the diversity index in sits per individual is a normalized number ranging from 1 for the most evenly distributed samples to 0 for the least

evenly distributed samples. Also, it can be used to compare different samples, independent of the number of taxa in each. The diversity in bits per individual should not be used in direct comparisons involving various samples which have different numbers of taxa. Since MaxH equals log S, the expression in sits is equal to $\log_S S$, or 1. Therefore diversity in sits per individual is numerically equivalent to J, the evenness component for the Shannon-Wiener formula.

## SPECIES OCCURRENCE AND ABUNDANCE

The alphabetic phytoplankton species list for each lake, presented in Appendix B, gives the concentrations of individual species by sampling date. Concentrations are in cells, colonies, or filaments (CEL, COL, FIL) per milliliter. An "X" after a species name indicates that the species identified in the preliminary examination was in such a low concentration that it did not appear in the count. A blank space indicates that the organism was not found in the sample collected on that date. Column S is used to designate the examiner's subjective opinion of the five dominant taxa in a sample, based upon relative size and concentration of the organism. The percent column (%C) presents, by abundance, the percentage composition of each taxon.

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## APPENDIX A

## PHYTOPLANKTON SPECIES FOR THE STATE OF ARKANSAS.

*Achnanthes lanceolata*
*Achnanthes lanceolata*
v. *dubia*
*Achnanthes microcephala*
*Actinastrum gracilimum*
*Actinastrum hantzschii*
v. *fluviatile*
*Anabaena planctonica*
*Anabaenopsis* sp.
*Anabaenopsis circularis*
*Anabaenopsis elenkinii*
*Anabaenopsis raciborskii ?*
*Ankistrodesmus falcatus*
*Ankistrodesmus falcatus*
v. *acicularis*
*Ankistrodesmus falcatus*
v. *mirabilis*
*Aphanizomenon flos-aquae*
*Aphanocapsa* sp.
*Aphanothece* sp.
*Arthrodesmus minor ?*
*Asterionella formosa*
*Attheya* sp.
*Binuclearia* sp.
*Caloneis lewisii*
*Capartogramma crucicula*
*Carteria klebsii*
*Centritractus* sp.
*Ceratium hirundinella*
*Ceratium hirundinella*
f. *brachyceras*
*Ceratium hirundinella*
f. *furcoides*
*Ceratium hirundinella*
f. *robustum*
*Chlamydomonas globusa*
*Chlorogonium* sp.
*Chroococcus dispersus*
*Chroococcus limneticus*
*Chroomonas acuta*
*Closteriopsis* sp.
*Closterium* sp.
*Cocconeis* sp.
*Coelastrum cambricum*
v. *intermedium*
*Coelastrum microporum*
*Coelastrum proboscideum*
*Coelastrum reticulatum*
*Coelastrum reticulatum*
v. *polychordon*
*Coelastrum sphaericum*
*Coelosphaerium naegelianum*
*Cosmarium clepsydra*
v. *nanum*
*Crucigenia apiculata*
*Crucigenia crucifera*
*Crugigenia fenestrata*
*Crugigenia quadrata*
*Crucigenia tetrapedia*
*Crucigenia truncata*
*Cryptomonas erosa*
*Cryptomonas marssonii*
*Cryptomonas reflexa*
*Cyclotella comta*
*Cyclotella meneghiniana*
*Cyclotella michiganiana*
*Cyclotella stelligera*
*Cymatopleura elliptica*
*Cymatopleura solea*
*Cymbella minuta*
*Cymbella tumidula*
*Cymbella ventricosa*
*Dactylococcopsis irregularis*
*Diatoma tenue*
v. *elongatum*
*Diatoma vulgare*
v. *breve*
*Dictyosphaerium pulchellum*
*Dinobryon bavaricum*
*Dinobryon cylindricum*
*Dinobryon divergens*
*Dinobryon sociale*
*Elakatothrix gelatinosa*
*Entomoneis ornata*
*Euastrum denticulatum*
*Eudorina elegans*
*Euglena acus*
*Euglena gracilis*
*Euglena limnophila*
v. *lemmermannii ?*
*Euglena oxyuris*
v. *minor*
*Euglena tripteris*
*Eunotia pectinalis*
v. *minor* f. *impressa*
*Eunotia pectinalis*
v. *ventricosa*
*Fragilaria crotonensis*
*Franceia ovalis ?*
*Glenodinium gymnodinium*
*Glenodinium gymnodinium*
v. *biscutelliforme*
*Glenodinium kulczynskii*
*Glenodinium oculatum*

*Glenodinium penardiforme*
*Glenodinium quadridens*
*Gloeocystis* sp.
*Golenkinia radiata*
v. *brevispina*
*Gomphonema gracile*
*Gomphonema parvulum*
*Gomphonema truncatum*
v. *capitatum*
*Gonatozygon montaenium*
*Gonium pectorale*
*Gymnodinium albulum*
*Gymnodinium ordinatum*
*Gyrosigma* sp.
*Hantzschia* sp.
*Kirchneriella contorta*
*Lagerheimia ciliata*
*Lagerheimia quadriseta*
*Lagerheimia subsalsa*
*Lepocinclis* sp.
*Lyngbya birgei*
*Lyngbya contorta*
*Lyngbya hieronymusii*
*Lyngbya limnetica*
*Mallomonas acaroides*
*Mallomonas pseudocoronata*
*Melosira distans*
*Melosira granulata*
*Melosira granulata*
v. *angustissima*
*Melosira granulata*
v. *angustissima* f. *spiralis*
*Melosira italica*
*Melosira varians*
*Merismopedia glauca*
*Merismopedia minima*
*Merismopedia punctata*
*Merismopedia tenuissima*
*Mesostigma viridis*
*Micractinium pusillum*
*Microcystis aeruginosa*
*Microcystis incerta*
*Mougeotia* sp.
*Navicula capitata*
*Navicula cuspidata*
*Navicula salinarum*
v. *intermedia*
*Navicula viridula*
v. *linearis*
*Nephrocytium* sp.
*Nitzschia acicularis*
*Nitzschia holsatica*
*Nitzschia vermicularis*
*Oocystis* sp.
*Ophiocytium capitatum*
*Oscillatoria lacustris*
*Oscillatoria limnetica*
*Pandorina morum*
*Pediastrum biradiatum*
*Pediastrum biradiatum*
v. *longecornutum*
*Pediastrum boryanum*
*Pediastrum duplex*
*Pediastrum duplex*
v. *reticulatum*
*Pediastrum simplex*
*Pediastrum simplex*
v. *duodenarium*
*Pediastrum tetras*
v. *tetraodon*
*Peridinium inconspicuum*
*Peridinium musculum*
*Peridinium quadridens*
*Peridinium umbonatum*
*Peridinium willei*
*Phacus acuminatus*
*Phacus caudatus*
*Phacus chloroplastes*
*Phacus longicauda*
*Phacus megalopsis*
*Phacus pleuronectes ?*
*Phacus pseudonordstedtii*
*Phacus tortus*
*Phacus triqueter*
*Phormidium mucicola*
*Pinnularia mesolepta*
*Pteromonas aculeata*
*Pteromonas angulosa*
*Pteromonas cordiformis*
*Quadrigula* sp.
*Raphidiopsis curvata*
*Rhizosolenia* sp.
*Rhoicosphenia curvata*
*Scenedesmus abundans*
*Scenedesmus acuminatus*
*Scenedesmus arcuatus*
v. *platydisca*
*Scenedesmus armatus*
v. *?*
*Scenedesmus bicaudatus*
*Scenedesmus bijuga*
*Scenedesmus brevispina*

*Scenedesmus denticulatus*
*Scenedesmus dimorphus*
*Scenedesmus intermedius*
*Scenedesmus intermedius*
v. *bicaudatus*
*Scenedesmus ovalternus*
v. *graevenitzii*
*Scenedesmus protuberans*
*Scenedesmus quadricauda*
*Scenedesmus quadricauda*
v. *quadrispina* f. *spinosus*
*Schroederia setigera*
*Scytonema* sp.
*Selenastrum minutum*
*Skeletonema potamos*
*Spermatozoopsis* sp.
*Staurastrum cuspidatum*
*Staurastrum tetracerum*
*Stephanodiscus astraea*
v. *minutula*
*Stephanodiscus niagarae*
*Stipitococcus* sp.
*Surirella angusta*
*Surirella tenera*
*Synedra acus*
*Synedra capitata*
*Synedra delicatissima*
*Synedra delicatissima*
v. *angustissima*
*Synedra rumpens*
*Synedra ulna*
*Synura uvella*
*Tabellaria fenestrata*
*Tetraedron caudatum*
*Tetraedron caudatum*
v. *longispinum*
*Tetraedron constrictum*
*Tetraedron gracile*
*Tetraedron limneticum*
*Tetraedron minimum*
*Tetraedron minimum*
v. *scrobiculatum*
*Tetraedron muticum*
*Tetraedron regulare*
*Tetraedron trigonum*
*Tetraedron trigonum*
v. *gracile*
*Tetrastrum elegans*
*Tetrastrum heteracanthum*
*Tetrastrum staurogeniaeforme*
*Trachelomonas bulla*
*Trachelomonas fluviatilis*
*Trachelomonas gibberosa*
*Trachelomonas hispida*
*Trachelomonas intermedia*
*Trachelomonas lacustris*
*Trachelomonas longicauda*
*Trachelomonas scabra*
*Trachelomonas scabra*
v. *cordata*
*Trachelomonas scabra*
v. *longicollis*
*Trachelomonas schauinslandii*
*Trachelomonas volvocina*
*Treubaria setigerum*

## APPENDIX B. SUMMARY OF PHYTOPLANKTON DATA

This appendix was generated by computer. Because it was only possible to use upper case letters in the printout, all scientific names are printed in upper case and are not italicized.

The alphabetic phytoplankton lists include taxa without species names (e.g., EUNOTIA, EUNOTIA #1, FLAGELLATE, FLAGELLATES, MICROCYSTIS INCERTA ?, CHLOROPHYTAN COCCOID CELLED COLONY). When species determinations were not possible, symbols or descriptive phrases were used to separate taxa for enumeration purposes. Each name on a list, however, represents a unique species different from any other name on the same list, unless otherwise noted, for counting purposes.

Numbers were used to separate unidentified species of the same genus. A generic name listed alone is also a unique species. A question mark (?) is placed immediately after the portion of a name which was assigned with uncertainty. Numbered, questioned, or otherwise designated taxa were established on a lake-by-lake basis; therefore NAVICULA #2 from lake A cannot be compared to NAVICULA #2 from lake B. Pluralized categories (e.g., FLAGELLATES, CENTRIC DIATOMS, SPP.) were used for counting purposes when taxa could not be properly differentiated on the counting chamber.

LAKE NAME: BEAVER LAKE
STORET NUMBER: 0501

NYGAARD TROPHIC STATE INDICES

| DATE | 04 05 74 | 08 30 74 | 10 09 74 |
|---|---|---|---|
| MYXOPHYCEAN | 02/) E | 3.50 E | 5.)) E |
| CHLOROPHYCEAN | 02/) E | 6.50 E | 7.00 E |
| EUGLENOPHYTE | 0.5) E | 0.30 E | 0.67 E |
| DIATOM | 0.83 E | 0.50 E | 1.40 E |
| COMPOUND | 11/) E | 14.5 E | 27.0 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 04 05 74 | 08 30 74 | 10 09 74 |
|---|---|---|---|
| GENUS | 01 | 10 | 01 |
| SPECIES | 02 | 00 | 00 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 04 05 74 | 08 30 74 | 10 09 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 2.91 | 3.38 | 3.10 |
| NUMBER OF TAXA | S | 23.00 | 51.00 | 39.00 |
| NUMBER OF SAMPLES COMPOSITED | N | 6.)) | 6.)) | 6.)) |
| MAXIMUM DIVERSITY | MAXH | 4.52 | 5.67 | 5.29 |
| MINIMUM DIVERSITY | MINH | 0.16 | 0.22 | 0.57 |
| TOTAL DIVERSITY | D | 4888.8) | 9886.5) | 2235.)) |
| TOTAL NUMBER OF INDIVIDUALS/ML | V | 1680.00 | 2925.00 | 721.00 |
| EVENESS COMPONENT | J | 0.64 | 0.60 | 0.58 |
| RELATIVE EVENESS | RJ | 0.64 | 0.58 | 0.54 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 73.04 | 57.35 | 18.49 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 474.)) | 549.)) | 172.)) |

LAKE NAME: BEAVER LAKE
STORET NUMBER: 3531

CONTINUED

| TAXA | FORM | 04 05 74 S | 04 05 74 RC | 04 05 74 ALGAL UNITS PER ML | 08 30 74 S | 08 30 74 RC | 08 30 74 ALGAL UNITS PER ML | 10 09 74 S | 10 09 74 RC | 10 09 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| ACHNANTHES | CEL | | | | | 4.2 | 122 | | | |
| ANABAENA | FIL | | | | | 2.1 | 61 | | | X |
| ANABAENOPSIS RACIBORSKII ? | FIL | | | | | 1.0 | 30 | | | |
| ANKISTRODESMUS FALCATUS V. ACICULARIS | CEL | | 1.9 | 32 | | | | | | |
| ASTERIONELLA FORMOSA | CEL | | | X | | | | | | |
| CENTRIC DIATOM | CEL | | | | | | | | 23.9 | 172 |
| CERATIUM HIRUNDINELLA F. BRACHYCERAS | CEL | | | | | | X | | | X |
| CHLAMYDOMONAS | CEL | | | | | | X | | 4.7 | 34 |
| CHLOROGONIUM | CEL | | | | | | X | | | |
| CHROOMONAS ACUTA | CEL | | 22.6 | 390 | | 11.5 | 335 | | | |
| CLOSTERIUM | CEL | | | | | | X | | | |
| COELASTRUM MICROPORUM | COL | | | | | | X | | | |
| COELASTRUM RETICULATUM V. POLYCHORDON | COL | | | | | | X | | | |
| COELOSPHAERIUM NAEGELIANUM | COL | | | | | | X | | | |
| CRYPTOMONAS EROSA | CEL | | 28.3 | 475 | | | X | | 9.6 | 69 |
| CRYPTOMONAS REFLEXA | CEL | | | X | | 1.0 | 30 | | | |
| DACTYLOCOCCOPSIS | CEL | | 5.7 | 95 | | 4.2 | 122 | | 4.7 | 34 |
| DACTYLOCOCCOPSIS IRREGULARIS | CEL | | | | | | | | | Y |
| DINOBRYON DIVERGENS | CEL | | | | | | | | | Y |
| EUASTRUM DENTICULATUM | CEL | | | | | | | | | X |
| EUGLENA | CEL | | | | | | X | | | X |
| EUGLENA GRACILIS | CEL | | 1.9 | 32 | | | | | | Y |
| EUGLENA OXYURIS V. MINOR | CEL | | | | | | X | | | X |
| FRAGILARIA CROTONENSIS | CEL | | | X | | 5.3 | 183 | | | Y |
| FRANCEIA | CEL | | | | | | X | | | |
| GLENODINIUM | CEL | | | | | | X | | | |
| GLENODINIUM OCULATUM | CEL | | 1.9 | 32 | | | X | | | |
| GOMPHOSPHERA PARVULUM | CEL | | | | | | X | | | |
| GYMNODINIUM ALBULUM | CEL | | | | | | X | | | |
| LEPOCINCLIS | CEL | | | | | | X | | | |
| LYNGBYA | FIL | | | | 4 | 18.8 | 540 | | | |
| MALLOMONAS ACAPOIDES | CEL | | | | | | X | | | |
| MELOSIRA DISTANS | CEL | 5 | 7.6 | 127 | 11 | 8.5 | 244 | 2 | 14.3 | 103 |
| MELOSIRA GRANULATA | CEL | | | | | | | 5 | 9.6 | 69 |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | 1 | 9.4 | 158 | | | X | | | X |
| MELOSIRA VARIANS | CEL | 11 | 7.6 | 127 | | | | | | |
| MESOSTIGMA VIRIDIS | CEL | | | | | | X | | | |
| NAUSEOSTIA | FIL | | | | | | X | | | |
| NAVICULA | CEL | | | X | | | | | | |
| NITZSCHIA | CEL | | | | | 11.5 | 335 | | | X |
| NITZSCHIA #1 | CEL | | | | | | | | 4.7 | 34 |
| OSCILLATORIA | FIL | | | X | | | X | | | X |
| OSCILLATORIA #1 | FIL | | | | | | X | | | X |
| PANDORINA MORUM | COL | | 1.9 | 32 | | | X | | | |
| PEDIASTRUM BIRADIATUM V. LONGECORNUTUM | COL | | | | | | X | | | |
| PEDIASTRUM SIMPLEX V. DUODENARIUM | COL | | | | | | X | | | Y |
| PEDIASTRUM TETRAS V. TETRAODON | COL | | | | | | X | | | Y |
| PENNATE DIATOM | CEL | | | X | | | | | | |
| PERIDINIUM | CEL | | | | | | | | | X |
| PERIDINIUM INCONSPICUUM | CEL | | | | | | | | | X |
| PERIDINIUM QUADRIDENS | CEL | | | | | | X | | | |
| PHACUS CAUDATUS | CEL | | | | | | X | | | Y |
| SCENEDESMUS DENTICULATUS | COL | | | | | 1.0 | 30 | | | X |
| SCENEDESMUS DIMORPHUS | COL | | | | | | X | | | X |
| SCENEDESMUS INTERMEDIUS | COL | | | | | | X | | | |
| SCENEDESMUS QUADRICAUDA | COL | | | | | 1.0 | 30 | | | X |
| SCHROEDERIA SETIGERA | CEL | | | X | | | X | | | |
| SKELETONEMA POTAMOS | CEL | | | | | | | 13 | 14.3 | 103 |
| STAURASTRUM | CEL | | | | | | X | | | |
| STEPHANODISCUS | CEL | | | | | | | | | |
| STEPHANODISCUS #1 | CEL | | | X | | | | | | X |
| STEPHANODISCUS ASTRAEA V. MINUTULA | CEL | | 11.3 | 190 | 5 | 5.3 | 193 | | | X |
| SYNEDRA #1 | CEL | | | | 3 | 18.8 | 540 | | | |
| SYNEDRA #2 | CEL | | | X | | | | | | |
| SYNEDRA #3 | CEL | | | X | | | | | 4.7 | 34 |
| SYNEDRA ULNA | CEL | | | | | | X | | | X |
| SYNURA | CEL | | | X | | | | | | |
| TETRAEDRON CONSTRICTUM | CEL | | | | | | | | | X |
| TETRAEDRON MINIMUM V. SCROBICULATUM | CEL | | | | | 4.2 | 122 | | 9.6 | 69 |
| TRACHELOMONAS | CEL | | | | | | X | | | |
| TRACHELOMONAS BULLA | CEL | | | | | | X | | | |
| TRACHELOMONAS BULLA ? | CEL | | | | | | | | | X |
| TRACHELOMONAS HISPIDA | CEL | | | | | | | | | X |
| TRACHELOMONAS INTERMEDIA | CEL | | | X | | | | | | X |
| TRACHELOMONAS SCHAUINSLANDII | CEL | | | | | | | | | X |
| TREUBARIA SETIGERUM | CEL | | | | | | X | | | |
| TOTAL | | | | 1680 | | | 2925 | | | 721 |

LAKE NAME: BLACKFISH LAKE
STORET NUMBER: 0502

NYGAARD TROPHIC STATE INDICES

| DATE | 03 26 74 | 06 04 74 | 10 16 74 |
|---|---|---|---|
| MYXOPHYCEAN | 01/0 E | 02/0 E | 03/0 E |
| CHLOROPHYCEAN | 0/0 O | 02/0 E | 05/0 E |
| EUGLENOPHYTE | 5.00 E | 2.00 E | 1.25 E |
| DIATOM | 0.17 ? | 0.50 E | 0.75 E |
| COMPOUND | 07/0 E | 13/0 E | 21/0 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 26 74 | 06 04 74 | 10 16 74 |
|---|---|---|---|
| GENUS | 08 | 08 | 22 |
| SPECIES | 00 | 00 | 02 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 26 74 | 06 04 74 | 10 16 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 2.76 | 2.35 | 4.11 |
| NUMBER OF TAXA | S | 17.00 | 17.00 | 36.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 3.00 | 3.00 | 2.00 |
| MAXIMUM DIVERSITY | MAXH | 4.09 | 4.09 | 5.17 |
| MINUMUM DIVERSITY | MINH | 0.34 | 0.16 | 0.05 |
| TOTAL DIVERSITY | D | 1344.12 | 2650.80 | 47351.31 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 487.00 | 1128.00 | 11521.00 |
| EVENESS COMPONENT | J | 0.67 | 0.57 | 0.79 |
| RELATIVE EVENESS | RJ | 0.65 | 0.56 | 0.80 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | I | 28.65 | 66.35 | 320.03 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 116.00 | 475.00 | 1767.00 |

LAKE NAME: BLACKFISH LAKE
STORET NUMBER: 0502

CONTINUED

| TAXA | FORM | 03 26 74 S | 03 26 74 %C | 03 26 74 ALGAL UNITS PER ML | 06 24 74 S | 06 24 74 %C | 06 24 74 ALGAL UNITS PER ML | 10 16 74 S | 10 16 74 %C | 10 16 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| CHLAMYDOMONAS | CEL | | | | | | | 3 | 11.7 | 1344 |
| CHLAMYDOMONAS GLOBOSA | CEL | | | | | | | | 3.4 | 42 |
| CHROOMONAS ACUTA | CEL | 3 | 19.1 | 93 | | | | | | |
| COELOSPHAERIUM NAEGELIANUM | COL | | | | | | | | 0.4 | 42 |
| CRYPTOMONAS | CEL | | | X | | | | | | |
| CRYPTOMONAS EROSA | CEL | 4 | 14.4 | 70 | 1 | 42.1 | 475 | 2 | 12.9 | 1479 |
| CRYPTOMONAS REFLEXA | CEL | | | | | | | | 0.7 | 84 |
| CYCLOTELLA MENEGHINIANA | CEL | | | | | | | | 1.8 | 210 |
| DACTYLOCOCCOPSIS | CEL | | | | | | X | | 5.5 | 631 |
| EUGLENA #1 | CEL | | | | 5 | 5.2 | 59 | 4 | 5.5 | 631 |
| EUGLENA #2 | CEL | | | | | | X | | 3.3 | 379 |
| EUGLENA #3 | CEL | | | | | | | | | X |
| EUGLENA #4 | CEL | | | | | | | | 3.4 | 42 |
| EUGLENA #5 | CEL | | | X | | | | | | |
| EUGLENA ACUS | CEL | | | | | | X | | 0.7 | 84 |
| EUGLENA SPP. | CEL | 1 | 23.8 | 116 | | | | | | |
| EUGLENOPHYTAN CELL | CEL | | | X | | | | | | |
| FLAGELLATE #2 | CEL | | | | 3 | 21.1 | 238 | | 6.6 | 757 |
| FLAGELLATE #4 | CEL | | | | | | | | 2.6 | 296 |
| FLAGELLATE #5 | CEL | | | | | | | | 0.4 | 42 |
| GONPHONEMA | CEL | | | | | | | | | X |
| GYROSIGMA | CEL | | 4.7 | 23 | | | | | | X |
| KIRCHNERIELLA | CEL | | | | | | | | 2.6 | 296 |
| LEPOCINCLIS | CEL | | | | | 5.2 | 59 | 1 | 8.3 | 925 |
| LYNGBYA CONTORTA | FIL | | | | | | X | | | |
| MELOSIRA DISTANS | CEL | | | | | | | | 1.1 | 126 |
| MELOSIRA GRANULATA | CEL | | | X | | | | | | |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | | | | X | | | |
| MERISMOPEDIA MINIMA | COL | | | | | | | | 0.4 | 42 |
| MESOSTIGMA VIRIDIS | CEL | | | | | | | | 1.1 | 126 |
| NAVICULA | CEL | | | | | | | | 1.1 | 126 |
| NAVICULA #1 | CEL | | | X | | | | | | |
| NAVICULA #3 | CEL | | | X | | | | | | |
| NAVICULA CUSPIDATA | CEL | | | X | | | | | | |
| NITZSCHIA | CEL | | | X | | | X | | | |
| NITZSCHIA #2 | CEL | | | | | | | 15 | 1.7 | 1767 |
| NITZSCHIA HOLSATICA | CEL | | | | | | X | | | |
| NITZSCHIA SPP. | CEL | 2 | 19.1 | 93 | | | | | | |
| PHACUS MEGALOPSIS | CEL | | | | | 5.2 | 59 | | 0.4 | 42 |
| PHACUS TRIQUETER | CEL | | | | | | | | | X |
| PHORMIDIUM | FIL | | 9.4 | 46 | | | | | | |
| PTEROMONAS ANGULOSA | CEL | | | | | | | | 1.8 | 210 |
| PYRONONAS CORDIFORMIS | CEL | | | | | | | | 2.6 | 296 |
| SCENEDESMUS ABUNDANS | COL | | | | | | X | | | |
| SCENEDESMUS BIJUGA | COL | | | | | | | | 1.5 | 168 |
| SCENEDESMUS QUADRICAUDA | COL | | | | | | X | | 3.4 | 42 |
| SKELETONEMA POTAMOS | CEL | | | | | | | | 6.2 | 715 |
| SPERMATOZOOPSIS | CEL | | | | | | | | | X |
| TETRASTRUM ELEGANS | COL | | | | | | | | 3.7 | 84 |
| TETRASTRUM HETERACANTHUM | COL | | | | | | | | 0.4 | 42 |
| TRACHELOMONAS GIBBEROSA | CEL | | 4.7 | 23 | | | | | | |
| TRACHELOMONAS HISPIDA | CEL | 5 | 4.7 | 23 | | | | | | |
| TRACHELOMONAS HISPIDA V. ? | CEL | | | | 4 | 10.5 | 119 | | | |
| TRACHELOMONAS INTERMEDIA | CEL | | | X | | | X | 5 | 2.0 | 336 |
| TRACHELOMONAS LONGICAUDA | CEL | | | | 2 | 10.5 | 119 | | | |
| TRACHELOMONAS VOLVOCINA | CEL | | | | | | | | 1.1 | 126 |
| TOTAL | | | | 487 | | | 1128 | | | 11521 |

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LAKE NAME: BLUE MOUNTAIN LAKE
STORET NUMBER: 0503

NYGAARD TROPHIC STATE INDICES

| DATE | 03 28 74 | 06 06 74 | 10 18 74 |
|---|---|---|---|
| MYXOPHYCEAN | 02/0 E | 02/0 E | 4.00 E |
| CHLOROPHYCEAN | 02/0 E | 02/0 E | 15.0 E |
| EUGLENOPHYTE | 0.25 E | 1.50 E | 0.26 E |
| DIATOM | 0.33 E | 1.00 E | 0.80 E |
| COMPOUND | 07/0 E | 12/0 E | 28.0 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 28 74 | 06 06 74 | 10 18 74 |
|---|---|---|---|
| GENUS | 04 | 09 | 14 |
| SPECIES | 00 | 00 | 00 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 28 74 | 06 06 74 | 10 18 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 2.41 | 0.55 | 2.81 |
| NUMBER OF TAXA | S | 18.00 | 17.00 | 45.00 |
| NUMBER OF SAMPLES COMPOSITED | N | 2.00 | 2.00 | 2.00 |
| MAXIMUM DIVERSITY | MAXH | 4.17 | 4.09 | 5.49 |
| MINUMUM DIVERSITY | MINH | 0.05 | 0.05 | 0.16 |
| TOTAL DIVERSITY | D | 11688.50 | 2217.05 | 10287.41 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 4850.00 | 4031.00 | 3661.00 |
| EVENESS COMPONENT | J | 0.58 | 0.13 | 0.51 |
| RELATIVE EVENESS | RJ | 0.58 | 0.13 | 0.50 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 269.44 | 237.12 | 81.36 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 1973.00 | 3742.00 | 998.00 |

Reproduced from best available copy.

LAKE NAME: BLUE MOUNTAIN LAKE CONTINUED
STORET NUMBER: 0503

| TAXA | FORM | 33 28 74 S | 33 28 74 % | 33 28 74 ALGAL UNITS PER ML | 36 36 74 S | 36 36 74 % | 36 36 74 ALGAL UNITS PER ML | 33 19 74 S | 33 19 74 % | 33 19 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| ANABAENA | FIL | | | | 12 | 9.7 | 29 | | | X |
| ANKISTRODESMUS | CEL | | | | | | | | | X |
| ANKISTRODESMUS FALCATUS | CEL | | | X | | | X | | | |
| ASTERIONELLA FORMOSA | CEL | 14 | 3.4 | 164 | | | | | | |
| CALONEIS LEWISII | CEL | | | | | | | | | X |
| CAPARTOGRAMMA CRUCICULA | CEL | | | X | | | | | | |
| CARTERIA | CEL | | | | | | | | | X |
| CERATIUM HIRUNDINELLA | CEL | | | | | | | | | X |
| CERATIUM HIRUNDINELLA F. BRACHYCERAS | CEL | | | | | | | | | X |
| CERATIUM HIRUNDINELLA V. PUPCOIDES | CEL | | | | | | X | | | |
| CHLAMYDOMONAS | CEL | | | | | | | 4 | 0.1 | 733 |
| CHROOMONAS ACUTA | CEL | 12 | 22.0 | 1069 | | | | | 1.1 | 42 |
| CLOSTERIUM | CEL | | | | | | | | | X |
| COELASTRUM MICROPORUM | COL | | | | | | | | | X |
| CRUCIGENIA APICULATA | COL | | | | | | | | 2.3 | 83 |
| CRUCIGENIA TETRAPEDIA | COL | | | | 5 | 0.7 | 20 | | | |
| CRYPTOMONAS | CEL | | | | | | | | | X |
| CRYPTOMONAS EROSA | CEL | | | | | | | 5 | 2.3 | 83 |
| CRYPTOMONAS MARSSONII | CEL | 3 | 5.1 | 247 | | | | | | |
| DACTYLOCOCCOPSIS | CEL | | 16.1 | 781 | | 0.7 | 20 | | | |
| DACTYLOCOCCOPSIS IRREGULARIS | CEL | | | | | | | | 4.5 | 166 |
| DICTYOSPHAERIUM PULCHELLUM | COL | | | X | | | | | | |
| DINOBRYON BAVARICUM | CEL | | | X | | | X | | | |
| EUGLENA #1 | CEL | | | X | 3 | 1.4 | 49 | | | |
| EUGLENA #2 | CEL | | | | | | X | | | |
| EUGLENA #3 | CEL | | | | | | | | | X |
| FLAGELLATE | CEL | | | X | | | | | | X |
| GYMNODINIUM ALBULUM | CEL | | | | | | | | | X |
| LEPOCINCLIS | CEL | | | | | | | | | X |
| MALLOMONAS ACAROIDES | CEL | | | | | | | | | X |
| MELOSIRA DISTANS | CEL | 5 | 6.8 | 329 | 4 | 2.1 | 86 | 7 | 22.7 | 832 |
| MELOSIRA GRANULATA | CEL | 11 | 40.7 | 1973 | 11 | 92.8 | 3742 | 11 | 27.3 | 998 |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | | | | | | | X |
| MICROCYSTIS AERUGINOSA | COL | | | | | | | | | X |
| NAVICULA | CEL | | 2.5 | 123 | | | | | | |
| NAVICULA CAPITATA | CEL | | | | | | | | | X |
| NITZSCHIA #1 | CEL | | | | | 1.4 | 58 | | 1.1 | 42 |
| OPHIOCYTIUM CAPITATUM | CEL | | | | | | | | | X |
| OSCILLATORIA | FIL | | | X | | | | | 4.5 | 166 |
| PANDORINA MORUM | COL | | | | | | X | | | |
| PEDIASTRUM BIRADIATUM V. LONGECORNUTUM | COL | | | | | | | | | X |
| PEDIASTRUM DUPLEX V. RETICULATUM | COL | | | | | | | | | X |
| PEDIASTRUM TETRAS V. TETRAODON | COL | | | | | | | | | X |
| PENNATE DIATOM #1 | CEL | | 0.8 | 41 | | | | | | |
| PENNATE DIATOM #2 | CEL | | 2.5 | 123 | | | | | | |
| PHACUS | CEL | | | | | | X | | | |
| PHACUS MEGALOPSIS | CEL | | | | | | X | | | |
| PHACUS TORTUS | CEL | | | | | | | | | X |
| PINNULARIA MESOLEPTA | CEL | | | | | | | | | X |
| PYRAMONAS ANGULOSA | CEL | | | | | | | | | X |
| SCENEDESMUS ABUNDANS | COL | | | | | | | | | X |
| SCENEDESMUS BICAUDATUS | COL | | | | | | | | | X |
| SCENEDESMUS DENTICULATUS | COL | | | | | | | | 1.1 | 42 |
| SCENEDESMUS DIMORPHUS | COL | | | | | | | | | X |
| SCENEDESMUS INTERMEDIUS | COL | | | | | | | | 1.1 | 42 |
| SCENEDESMUS PROTUBERANS | COL | | | | | | | | | X |
| SCENEDESMUS QUADRICAUDA | COL | | | | | | | | | X |
| STEPHANODISCUS ASTRAEA V. MINUTULA | CEL | | | | | | | 31 | 21.6 | 790 |
| SYNEDRA | CEL | | | | | | | | | X |
| SYNEDRA #1 | CEL | | | X | | | | | | |
| SYNEDRA ULNA | CEL | | | X | | | | | | |
| TABELLARIA FENESTRATA | CEL | | | | | | X | | | |
| TETRAEDRON TRIGONUM | CEL | | | | | | | | | X |
| TETRASTRUM HETERACANTHUM | COL | | | | | | | | | X |
| TRACHELOMONAS | CEL | | | | | | | | | X |
| TRACHELOMONAS #1 | CEL | | | | | | X | | | |
| TRACHELOMONAS FLUVIATILIS | CEL | | | | | | X | | | |
| TRACHELOMONAS VOLVOCINA | CEL | | | | | | | | 1.1 | 42 |
| TOTAL | | | | 4850 | | | 4031 | | | 3661 |

LAKE NAME: BULL SHOALS LAKE
STORET NUMBER: 0504

NYGAARD TROPHIC STATE INDICES

| DATE | 04 06 74 | 06 20 74 | 09 05 74 | 10 15 74 |
|---|---|---|---|---|
| MYXOPHYCEAN | 04/0 E | 4.00 E | 2.33 E | 06/0 E |
| CHLOROPHYCEAN | 04/0 E | 5.00 E | 0.67 ? | 05/0 E |
| EUGLENOPHYTE | 0.12 ? | 0/18 ? | 0/09 ? | 0/11 ? |
| DIATOM | 0.67 E | 0/03 ? | 0.50 E | 1.50 E |
| COMPOUND | 17/0 E | 9.00 E | 3.33 E | 14/0 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 04 06 74 | 06 20 74 | 09 05 74 | 10 15 74 |
|---|---|---|---|---|
| GENUS | 08 | 01 | 00 | 02 |
| SPECIES | 00 | 00 | 00 | 00 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 04 06 74 | 06 20 74 | 09 05 74 | 10 15 74 |
|---|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 3.03 | 2.26 | 2.29 | 2.71 |
| NUMBER OF TAXA | S | 36.00 | 31.00 | 22.00 | 21.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 8.00 | 8.00 | 8.00 | 8.00 |
| MAXIMUM DIVERSITY | MAXH | 5.17 | 4.95 | 4.46 | 4.39 |
| MINUMUM DIVERSITY | MINH | 0.20 | 0.22 | 0.46 | 0.25 |
| TOTAL DIVERSITY | D | 6641.76 | 3812.62 | 1076.30 | 2471.52 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 2192.00 | 1687.00 | 470.00 | 912.00 |
| EVENESS COMPONENT | J | 0.59 | 0.46 | 0.51 | 0.62 |
| RELATIVE EVENESS | RJ | 0.57 | 0.44 | 0.46 | 0.60 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 60.89 | 54.42 | 21.36 | 43.43 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 620.00 | 927.00 | 181.00 | 252.00 |

LAKE NAME: BULL SHOALS LAKE
STORET NUMBER: 0504

CONTINUED

| TAXA | FORM | 04 06 74 IS | 04 06 74 EC | 04 06 74 ALGAL UNITS PER ML | 06 20 74 IS | 06 20 74 EC | 06 20 74 ALGAL UNITS PER ML | 09 25 74 IS | 09 25 74 EC | 09 25 74 ALGAL UNITS PER ML | 12 16 74 IS | 12 16 74 EC | 12 16 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACHNANTHES LANCEOLATA V. DUBIA | CEL | | | X | | | | | | | | | |
| ANABAENA | FIL | | | X | | | X | 1 | 7.7 | 36 | | | |
| ANKISTRODESMUS FALCATUS | CEL | | | | | | | | | X | | | |
| APHANIZOMENON FLOS-AQUAE | FIL | | | | 2 | 7.8 | 132 | 2 | 7.7 | 36 | | | |
| APHANOCAPSA | COL | | | | | | X | | | X | | | X |
| APHANOTHECE | COL | | | | | 3.9 | 66 | | | X | 1 | 3.4 | 31 |
| ASTERIONELLA FORMOSA | CEL | | | X | | 2.0 | 33 | | | | | | |
| CENTRIC DIATOM | CEL | | | X | | | | | | | | | |
| CERATIUM HIRUNDINELLA | CEL | | | | | | X | | | X | | | |
| CERATIUM HIRUNDINELLA F. BRACHYCERAS | CEL | | | | | | | | | X | | | |
| CERATIUM HIRUNDINELLA F. FURCOIDES | CEL | | | | | | X | | | | | | |
| CHROOCOCCUS LIMNETICUS | COL | | | | | | X | | | | | | |
| CHROOMONAS ACUTA | CEL | 4 | 17.1 | 375 | | 13.8 | 232 | 5 | 38.5 | 181 | 4 | 27.6 | 252 |
| CLOSTERIUM #1 | CEL | | | | | | | | | X | | | |
| CLOSTERIUM #2 | CEL | | | | | | X | | | | | | |
| COELASTRUM RETICULATUM V. POLYCHORDON | COL | | | | | | X | | | | | | |
| COELASTRUM SPHAERICUM | COL | | | | 1 | 2.0 | 33 | | | | | | |
| COELOSPHAERIUM NAEGELIANUM | COL | | | | | | X | | | | | | |
| COSMARIUM | CEL | | | | | | X | | | | | | |
| COSMARIUM CLEPSYDRA V. NANUM | CEL | | | | | | | | | X | | | |
| CRYPTOMONAS EROSA | CEL | 1 | 13.0 | 285 | 1 | 7.8 | 132 | 1 | 15.4 | 79 | | | X |
| CRYPTOMONAS MARSSONII | CEL | | | | | 2.0 | 33 | | | | | | |
| CRYPTOMONAS SPP. | CEL | | | | | | | | | | 2 | 13.8 | 126 |
| CYCLOTELLA | CEL | | | | | | | | | | | 6.9 | 63 |
| CYMATOPLEURA SOLEA | CEL | | | X | | | | | | | | | |
| DIATOMA TENUE V. ELONGATUM | CEL | | 1.4 | 90 | | | | | | | | | |
| DIATOMA VULGARE V. BREVE | CEL | | | X | | | | | | | | | |
| DICTYOSPHAERIUM PULCHELLUM | COL | | | | | | X | | | | | | |
| DINOBRYON DIVERGENS | CEL | | | | 1 | 3.9 | 66 | | | | | | |
| DINOBRYON SOCIALE | CEL | | | | | | | | | X | | | |
| FRAGILARIA | CEL | | | X | | | | | | | | | |
| FRAGILARIA CROTONENSIS | CEL | | 7.5 | 165 | 1 | 34.9 | 927 | | | X | 1 | 13.8 | 126 |
| GLENODINIUM KULCZYNSKII | CEL | | | X | | | | | | | | | |
| GYMNODINIUM | CEL | | | X | | | | | | | | | |
| LAGERHEINIA CILIATA | CEL | | | | | | X | | | | | | |
| LAGERHEINIA SUBSALSA | CEL | | | | | 2.0 | 33 | | | | | | X |
| LYNGBYA HIERONYMUSII | FIL | | | | | | | | | | | | X |
| LYNGBYA LIMNETICA | FIL | | | | | | | | | X | | | |
| MALLOMONAS | CEL | | | | | | | | | X | | | |
| MELOSIRA | CEL | | | | | | | | | X | | | |
| MELOSIRA DISTANS | CEL | | 2.7 | 60 | | | | | | | | | |
| MELOSIRA GRANULATA | CEL | | | X | | | | | | | 1 | 20.7 | 189 |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | X | | | | | | | | | |
| MELOSIRA ITALICA | CEL | 2 | 28.3 | 620 | | | | | | | | | |
| MELOSIRA VARIANS | CEL | | | X | | | | | | | | | |
| MICROCYSTIS AERUGINOSA | COL | | | | | | X | 1 | 7.7 | 36 | | | X |
| MOUGEOTIA | CEL | | | X | | | | | 23.9 | 109 | | | |
| NAVICULA SALINARUM V. INTERMEDIA | CEL | | | X | | | | | | | | | |
| NITZSCHIA VERMICULARIS | CEL | | | X | | | | | | | | | |
| OOCYSTIS | CEL | | | | | | X | | | | | | X |
| OSCILLATORIA #1 | FIL | | 0.7 | 15 | | | X | | | X | | | X |
| OSCILLATORIA #2 | FIL | | 2.1 | 45 | | | | | | | | 3.4 | 31 |
| OSCILLATORIA LIMNETICA | FIL | | | X | | | | | | | | | |
| PANDORINA MORUM | COL | | | | | | X | | | | | | |
| PEDIASTRUM BORYANUM | COL | | | X | | | | | | | | | |
| PEDIASTRUM SIMPLEX V. DUODENARIUM | COL | | | X | | | X | | | | | | X |
| PEDIASTRUM TETRAS V. TETRADON | COL | | | | | | X | | | | | | |
| PENNATE DIATOM | CEL | | | X | | | | | | | | | |
| PERIDINIUM | CEL | | | X | | | | | | | | | |
| PERIDINIUM #2 | CEL | | | X | | | | | | | | | |
| PERIDINIUM QUADRIDENS | CEL | | | | | | | | | | | | X |
| PERIDINIUM WILLEI | CEL | | | | | | X | | | | | | X |
| PHACUS PSEUDONORDSTEDTII | CEL | | | X | | | | | | | | | |
| QUADRIGULA | COL | | | | | | | | | | | | X |
| SCENEDESMUS | COL | | | X | | | | | | | | | |
| SCENEDESMUS BIJUGA | COL | | | | | | X | | | | | | |
| SCENEDESMUS QUADRICAUDA | COL | | 1.4 | 30 | | | | | | | | | |
| STAURASTRUM | CEL | | | | | | | | | X | | | |

LAKE NAME: BULL SHOALS LAKE CONTINUED
STORET NUMBER: 3904

| TAXA | FORM | 04 06 74 S | 04 06 74 RC | 04 06 74 ALGAL UNITS PER ML | 06 20 74 S | 06 20 74 RC | 06 20 74 ALGAL UNITS PER ML | 09 05 74 S | 09 05 74 RC | 09 05 74 ALGAL UNITS PER ML | 10 15 74 S | 10 15 74 RC | 10 15 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STEPHANODISCUS ASTRAEA V. MINUTULA | CEL | | 6.1 | 134 | | | | | | | | | |
| STEPHANODISCUS NIAGARAE | CEL | 1 | 10.2 | 223 | | | | | | | | | X |
| SYNEDRA #2 | CEL | | 0.7 | 15 | | | | | | | | | |
| SYNEDRA DELICATISSIMA | CEL | 9 | 8.9 | 195 | | | X | | | X | | | X |
| TETRAEDRON MINIMUM | CEL | | | | | | X | | | | | 13.9 | 94 |
| TETRAEDRON MINIMUM V. SCROBICULATUM | CEL | | | | | | | | | X | | | |
| TOTAL | | | | 2192 | | | 1687 | | | 470 | | | 912 |

LAKE NAME: LAKE CATHERINE
STORET NUMBER: 0505

NYGAARD TROPHIC STATE INDICES

| DATE | 03 26 74 | 06 05 74 | 10 15 74 |
|---|---|---|---|
| MYXOPHYCEAN | 01/0 E | 03/0 E | 2.00 E |
| CHLOROPHYCEAN | 06/0 E | 08/0 E | 8.50 E |
| EUGLENOPHYTE | 0/07 ? | 0.18 ? | 0.14 ? |
| DIATOM | 0.83 E | 0.57 E | 0.33 E |
| COMPOUND | 12/0 E | 17/0 E | 13.5 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 26 74 | 06 05 74 | 10 15 74 |
|---|---|---|---|
| GENUS | 11 | 03 | 08 |
| SPECIES | 03 | 00 | 04 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 26 74 | 06 05 74 | 10 15 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 3.01 | 1.69 | 3.57 |
| NUMBER OF TAXA | S | 25.00 | 33.00 | 46.00 |
| NUMBER OF SAMPLES COMPOSITED | N | 4.00 | 4.00 | 4.00 |
| MAXIMUM DIVERSITY | MAXH | 4.64 | 5.04 | 5.52 |
| MINUMUM DIVERSITY | MINH | 0.05 | 0.09 | 0.22 |
| TOTAL DIVERSITY | D | 19131.56 | 8745.75 | 9121.35 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 6356.00 | 5175.00 | 2555.00 |
| EVENESS COMPONENT | J | 0.65 | 0.34 | 0.65 |
| RELATIVE EVENESS | RJ | 0.65 | 0.33 | 0.64 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 254.24 | 156.82 | 55.54 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 2118.00 | 3885.00 | 487.00 |

LAKE NAME: LAKE CATHERINE
STORET NUMBER: 0505

CONTINUED

| TAXA | FORM | 33 26 74 S | 33 26 74 BC | 33 26 74 ALGAL UNITS PER ML | 36 35 74 S | 36 35 74 BC | 36 35 74 ALGAL UNITS PER ML | 13 15 74 S | 13 15 74 BC | 13 15 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| ANKISTRODESMUS | CEL | | | | | 2.2 | 113 | | | |
| ANKISTRODESMUS FALCATUS | CEL | | 1.2 | 77 | | | | | | X |
| ANKISTRODESMUS FALCATUS V. MIRABILIS | CEL | | 1.2 | 77 | | | | | | |
| ASTERIONELLA FORMOSA | CEL | | | | | X | | | | X |
| CENTRIC DIATOM | CEL | | | | | 3.5 | 181 | | | |
| CENTRITRACTUS | CEL | | | | | X | | | | |
| CHLAMYDOMONAS | CEL | 13 | 6.1 | 385 | | | | | | |
| CHLOROPHYTAN FILAMENT | FIL | | | | | X | | | | |
| CHROOMONAS ACUTA | CEL | 14 | 6.7 | 424 | 15 | 4.4 | 226 | | | X |
| COELASTRUM RETICULATUM | COL | | | | | X | | | | |
| CRUCIGENIA | COL | | | | | | | | 2.4 | 61 |
| CRUCIGENIA TETRAPEDIA | COL | | | X | | X | | | | |
| CRYPTOMONAS | CEL | | 1.2 | 77 | 12 | 2.6 | 136 | | | |
| CRYPTOMONAS EROSA | CEL | | | X | | | | 14 | 5.9 | 149 |
| CRYPTOMONAS REFLEXA | CEL | | | | | | | | | X |
| CYCLOTELLA | CEL | | 7.9 | 531 | | | | | | |
| DACTYLOCOCCOPSIS | CEL | | | X | | | | | 8.3 | 213 |
| DICTYOSPHAERIUM PULCHELLUM | COL | | | | | 0.4 | 23 | | 1.2 | 31 |
| DINOBRYON SOCIALE | CEL | | | | | | X | | | X |
| EUASTRUM | CEL | | | | | | | | | X |
| EUGLENA | CEL | | | | | | X | | | X |
| EUGLENA #1 | CEL | | | | | | | | | X |
| FLAGELLATE | CEL | | | | | 1.7 | 90 | | | |
| FLAGELLATE #2 | CEL | | 7.1 | 462 | | | | | | |
| FLAGELLATES | CEL | | | | | | | | 2.4 | 61 |
| FRAGILARIA CROTONENSIS | CEL | | | X | | | | | | X |
| GOLENKINIA | CEL | | | | | | | | | X |
| GOMPHONEMA | CEL | | | | | | X | | | |
| GONIUM PECTORALE | COL | | | | | | X | | | |
| KIRCHNERIELLA | CEL | | | | | | | | 2.4 | 61 |
| MALLOMONAS | CEL | | 0.6 | 39 | | | | | | |
| MELOSIRA DISTANS | CEL | 11 | 33.3 | 2118 | 14 | 2.2 | 113 | | 4.9 | 127 |
| MELOSIRA GRANULATA | CEL | | 2.4 | 154 | | | | | | |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | X | | 1.3 | 68 | | 4.9 | 127 |
| MERISMOPEDIA TENUISSIMA | COL | | | | | 0.9 | 45 | | 2.4 | 61 |
| MESOSTIGMA VIRIDIS | CEL | | 2.4 | 154 | | 0.4 | 23 | | | X |
| NAVICULA | CEL | | | X | | 0.4 | 23 | | 1.2 | 30 |
| NITZSCHIA #1 | CEL | | | | | | | | | X |
| NITZSCHIA #2 | CEL | | 5.5 | 347 | | | X | 13 | 17.9 | 457 |
| OOCYSTIS | CEL | | | | | | | | | X |
| OSCILLATORIA | FIL | | | | | 3.4 | 23 | | | X |
| OSCILLATORIA #1 | FIL | | | | | | | | | X |
| OSCILLATORIA #2 | FIL | | | | | | X | | | |
| PANDORINA MORUM | COL | | | | | | X | | | |
| PEDIASTRUM BIRADIATUM | COL | | | | | | X | | 3.6 | 91 |
| PEDIASTRUM TETRAS V. TETRAODON | COL | | | | | | | | | X |
| PENNATE DIATOM #1 | CEL | | | | | | | 11 | 19.1 | 487 |
| PENNATE DIATOMS | CEL | | | | 13 | 3.1 | 158 | | | |
| PERIDINIUM INCONSPICUUM | CEL | | | | | | | | 1.2 | 30 |
| PHACUS | CEL | | | | | | | | 1.2 | 30 |
| RHOICOSPHENIA CURVATA | CEL | | | | | | | | | X |
| SCENEDESMUS | COL | | | X | | | | | | |
| SCENEDESMUS ABUNDANS | COL | | | | | 0.9 | 45 | 15 | 5.9 | 152 |
| SCENEDESMUS BICAUDATUS | COL | | | | | | | | | X |
| SCENEDESMUS DENTICULATUS | COL | | | | | | | | | X |
| SCENEDESMUS DIMORPHUS | COL | | | | | | | | | X |
| SCENEDESMUS QUADRICAUDA | CEL | | 0.6 | 39 | | | X | 12 | 14.1 | 365 |
| SKELETONEMA POTAMOS | CEL | 12 | 21.8 | 1386 | 11 | 75.1 | 3885 | | | X |
| SPERMATOZOOPSIS | CEL | | | | | | | | | X |
| STAURASTRUM | CEL | | | | | | | | | X |
| SURIRELLA | CEL | | | X | | | | | | |
| SYNEDRA ACUS | CEL | | | | | | X | | | X |
| SYNEDRA RUMPENS | CEL | | | X | | | | | | |
| TABELLARIA FENESTRATA | CEL | 15 | 1.2 | 77 | | | X | | | X |
| TETRAEDRON CAUDATUM V. LONGISPINUM | CEL | | | | | | | | | X |
| TETRAEDRON MINIMUM | CEL | | 0.6 | 39 | | | | | | |
| TETRAEDRON MINIMUM V. SCROBICULATUM | CEL | | | | | | | | 1.2 | 30 |
| TETRASTRUM HETERACANTHUM | COL | | | | | | | | | X |
| TETRASTRUM STAUROGENIAEFORME | COL | | | | | | X | | | |
| TRACHELOMONAS | CEL | | | | | 0.4 | 23 | | | |
| TRIBUBARIA SETIGERUM | CEL | | | | | | | | | X |
| TOTAL | | | | 6356 | | | 5175 | | | 7454 |

LAKE NAME: LAKE CHICOT
STORET NUMBER: 0506

NYGAARD TROPHIC STATE INDICES

| DATE | 03 26 74 | 06 05 74 | 10 16 74 |
|---|---|---|---|
| MYXOPHYCEAN | 04/0 E | 5.00 E | 05/0 E |
| CHLOROPHYCEAN | 09/0 E | 3.00 E | 08/0 E |
| EUGLENOPHYTE | 0.46 E | 1.00 E | 0.46 E |
| DIATOM | 1.00 E | 1.50 E | 1.40 E |
| COMPOUND | 23/0 E | 19.0 E | 26/0 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 26 74 | 06 05 74 | 10 16 74 |
|---|---|---|---|
| GENUS | 01 | 18 | 06 |
| SPECIES | 00 | 03 | 00 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 26 74 | 06 05 74 | 10 16 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 1.68 | 3.56 | 3.08 |
| NUMBER OF TAXA | S | 29.00 | 30.00 | 38.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 3.00 | 3.00 | 3.00 |
| MAXIMUM DIVERSITY | MAXH | 4.86 | 4.91 | 5.25 |
| MINUMUM DIVERSITY | MINH | 0.13 | 0.13 | 0.08 |
| TOTAL DIVERSITY | D | 4799.76 | 10502.00 | 20768.44 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 2857.00 | 2950.00 | 6743.00 |
| EVENESS COMPONENT | J | 0.35 | 0.73 | 0.59 |
| RELATIVE EVENESS | RJ | 0.33 | 0.72 | 0.59 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 98.52 | 98.33 | 177.45 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 1904.00 | 566.00 | 2281.00 |

LAKE NAME: LAKE CHICOT
STORET NUMBER: 0506

CONTINUED

| TAXA | FORM | 23 26 74 | | | 26 35 74 | | | 30 14 76 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | S | BC | ALGAL UNITS PER ML | S | BC | ALGAL UNITS PER ML | S | BC | ALGAL UNITS PER ML |
| ACHNANTHES MICROCEPHALA | CEL | | | | | | | | | X |
| ACTINASTRUM GRACILIMUM | CEL | 14 | 5.4 | 154 | | | | | | |
| ANABAENA | FIL | | | X | | | | | | |
| ANABAENOPSIS CIRCULARIS | FIL | | | | | | | | | X |
| ANABAENOPSIS ELENKINII | FIL | | | | 3 | 4.0 | 119 | | | |
| ANKISTRODESMUS FALCATUS | CEL | | | | | 2.0 | 60 | | | |
| ANKISTRODESMUS FALCATUS V. ACICULARIS | CEL | | | X | | | | | 3.5 | 99 |
| BINUCLEARIA | FIL | | 1.1 | 31 | | | | | | |
| CHROCOCCUS | COL | | | | | | | | | X |
| CHROOMONAS | CEL | | | | | | X | | | |
| CHROOMONAS ACUTA | CEL | | | | | 3.0 | 89 | | | |
| CLOSTERIUM | CEL | | | | | | X | | | |
| COELASTRUM MICROPORUM | COL | | | X | | | | | | |
| CRUCIGENIA APICULATA | COL | | | X | | 1.0 | 30 | | | |
| CRUCIGENIA TETRAPEDIA | COL | | | X | | | | | | |
| CRYPTOMONAS EROSA | CEL | 13 | 8.6 | 246 | 1 | 14.1 | 417 | | | |
| CRYPTOMONAS MARSSONII | CEL | | | | | 1.0 | 30 | 3 | 1.5 | 104 |
| CYANOPHYTAN FILAMENT | FIL | | | | | | | 1 | 113.8 | 7981 |
| CYCLOTELLA | CEL | | | | | 6.1 | 179 | | | |
| CYCLOTELLA MENEGHINIANA | CEL | | | | | | | | 0.5 | 35 |
| DACTYLOCOCCOPSIS | CEL | | 3.2 | 92 | | 3.0 | 89 | | | |
| EUGLENA #1 | CEL | | | X | | | | | | X |
| EUGLENA #2 | CEL | | | X | | | | | | |
| EUGLENA #3 | CEL | | | | | | X | | | |
| EUGLENA #4 | CEL | | | | | | X | | | |
| EUGLENA #5 | CEL | | | | | | | | 0.5 | 35 |
| EUGLENA ACUS | CEL | | | | | | | | | X |
| EUGLENA LIMNOPHILA V. LEMMERMANNII ? | CEL | | | | | | X | | | |
| EUGLENA OXYURIS V. MINOR | CEL | 1 | 1.1 | 31 | | | | | | |
| EUGLENA SPP. | CEL | | | | 1 | 4.0 | 119 | | | |
| FLAGELLATE #2 | CEL | | | | | 4.0 | 119 | | | |
| FLAGELLATES | CEL | | | | | | | | 10.8 | 774 |
| GLENODINIUM OCULATUM | CEL | | | | | 2.0 | 60 | | | |
| GYMNODINIUM | CEL | | | | | | | | | X |
| LEPOCINCLIS | CEL | | | | | | X | | | |
| LUNATE CELL | CEL | | | | | | | | 2.0 | 139 |
| MELOSIRA DISTANS | CEL | 17 | 12.9 | 368 | | 18.2 | 536 | 2 | 18.4 | 1244 |
| MELOSIRA GRANULATA | CEL | | | | | | X | | | X |
| MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS | CEL | | | X | | | | 1 | 1.0 | 69 |
| MELOSIRA VARIANS | CEL | | | X | | | | | | X |
| MERISMOPEDIA TENUISSIMA | COL | | | | 2 | 19.2 | 566 | | 3.6 | 242 |
| MESOTIGNA VIRIDIS | CEL | | | | | | | | 0.5 | 35 |
| MICROCYSTIS INCERTA | COL | | | | | 2.0 | 60 | | | |
| NITZSCHIA #1 | CEL | | 1.1 | 31 | | 6.1 | 179 | | 3.1 | 207 |
| NITZSCHIA #2 | CEL | | | | | | | | | X |
| NITZSCHIA ACICULARIS | CEL | | | | | | X | | | |
| OSCILLATORIA | FIL | | | | 5 | 7.1 | 239 | | | |
| OSCILLATORIA #1 | FIL | | | X | | | | | | |
| PEDIASTRUM DUPLEX V. RETICULATUM | COL | | | | | | | | | X |
| PENNATE DIATOM | CEL | | | X | | | | | | |
| PERIDINIUM | CEL | | | | | | | | 3.5 | 99 |
| PERIDINIUM UMBONATUM | CEL | | | | | | X | | | |
| PHACUS | CEL | | | X | | | | | | X |
| PHACUS ACUMINATUS | CEL | | | | | | X | | | |
| PHACUS MEGALOPSIS | CEL | | | X | | | | | | |
| PTEROMONAS ACULEATA | CEL | | | | | | | | | X |
| RAPHIDIOPSIS ? | FIL | | | X | | | | | | |
| RAPHIDIOPSIS CURVATA | FIL | | | | | | | | 4.1 | 277 |
| SCENEDESMUS | COL | | | | | | | | 3.5 | 99 |
| SCENEDESMUS DIMORPHUS | COL | | | | | | | | | X |
| SCENEDESMUS PROTUBERANS | COL | | | X | | | | | | |
| SCHROEDERIA SETIGERA | CEL | | | | | | X | | | X |
| SKELETONEMA POTAMOS | CEL | | | | | | | | 2.6 | 173 |
| STEPHANODISCUS | CEL | | | | | | | 5 | 10.9 | 774 |
| STEPHANODISCUS ASTRAEA V. MINUTULA | CEL | 11 | 66.6 | 1934 | | | | | | |
| SURIRELLA | CEL | | | X | | | | | | |
| SYNEDRA | CEL | | | | | | | | | X |
| SYNEDRA #1 | CEL | | | | | | | | 4.6 | 311 |
| SYNEDRA #2 | CEL | | | X | | | | | | |
| TETRAEDRON CAUDATUM V. LONGISPINUM | CEL | | | | | | | | | X |
| TETRAEDRON MINIMUM | CEL | | | | | | | | 0.9 | 35 |
| TETRAEDRON MUTICUM | CEL | | | X | | | | | | |

LAKE NAME: LAKE CHICOT CONTINUED
STORET NUMBER: 0506

| TAXA | FORM | 09 26 74 IS | RC | ALGAL UNITS PER ML | 06 05 74 IS | RC | ALGAL UNITS PER ML | 10 16 74 IS | RC | ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| TETRAEDRON TRIGONUM | CEL | | | X | | | | | | |
| TETRASTRUM STAUROGENIAEFORME | COL | | | X | | | | | | X |
| TRACHELOMONAS | CEL | | | | | 3.0 | 89 | | | X |
| TRACHELOMONAS SCABRA | CEL | | | X | | | X | | | X |
| TRACHELOMONAS SCABRA V. CORDATA | CEL | | | | | | X | | | |
| TOTAL | | | | 2857 | | | 2950 | | | 4743 |

LAKE NAME: DE GRAY LAKE
STORET NUMBER: 0507

NYGAARD TROPHIC STATE INDICES

| DATE | 03 25 74 | 06 05 74 | 10 16 74 |
|---|---|---|---|
| MYXOPHYCEAN | 03/) E | ).75 E | 2.5) E |
| CHLOROPHYCEAN | 05/0 E | 1.00 E | 4.50 E |
| EUGLENOPHYTE | 0.12 ? | 0.14 ? | 0.07 ? |
| DIATOM | ).3) ? | ).80 E | ).4) E |
| COMPOUND | 12/0 E | 3.00 E | 8.50 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 25 74 | 06 05 74 | 10 16 74 |
|---|---|---|---|
| GENUS | )6 | )6 | 11 |
| SPECIES | 03 | 00 | 04 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 25 74 | 06 05 74 | 10 16 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 3.57 | 1.87 | 4.14 |
| NUMBER OF TAXA | S | 26.00 | 28.00 | 33.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 6.00 | 5.00 | 6.00 |
| MAXIMUM DIVERSITY | MAXH | 4 7) | 4.81 | 5.04 |
| MINUMUM DIVERSITY | MINH | 0.19 | 0.04 | 0.20 |
| TOTAL DIVERSITY | D | 5808.39 | 17196.52 | 8176.5) |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 1627.00 | 9196.00 | 1975.00 |
| EVENESS COMPONENT | J | 0.76 | 0.39 | 0.82 |
| RELATIVE EVENESS | RJ | ).75 | ).39 | ).82 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 62.58 | 328.43 | 59.85 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 287.00 | 6083.00 | 214.00 |

LAKE NAME: DE GRAY LAKE
STOREY NUMBER: 0507

CONTINUED

| TAXA | FORM | 03 25 74 | | | 06 05 74 | | | 10 16 74 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | IS | BC | ALGAL UNITS PER ML | IS | BC | ALGAL UNITS PER ML | IS | BC | ALGAL UNITS PER ML |
| ACHNANTHES LANCEOLATA | CEL | | | X | | | | | | |
| ANKISTRODESMUS FALCATUS | CEL | 12 | 17.6 | 287 | | | | 3 | 17.8 | 214 |
| ANKISTRODESMUS FALCATUS V. MIRABILIS | CEL | | | | | | X | | | |
| APHANIZOMENON FLOS-AQUAE | FIL | 5 | 2.0 | 32 | 3 | 3.4 | 317 | | | |
| ASTERIONELLA FORMOSA | CEL | | 9.8 | 159 | | 0.6 | 58 | | | |
| CENTRITRACTUS | CEL | | | | | | | | | X |
| CERATIUM HIRUNDINELLA | CEL | | | | | | X | | | |
| CERATIUM HIRUNDINELLA F. FURCOIDES | CEL | | | | | | X | | | |
| CHLAMYDOMONAS | CEL | | | | | | | 5 | 4.0 | 119 |
| CHROOMONAS ACUTA | CEL | | | | 5 | 6.9 | 634 | 11 | 10.9 | 214 |
| CLOSTERIUM #1 | CEL | | | | | | X | | | |
| CLOSTERIUM #2 | CEL | | | | | | X | | | |
| COCCONEIS | CEL | | | X | | | | | | |
| COELASTRUM MICROPORUM | COL | | | | | | X | | | |
| CRUCIGENIA TETRAPEDIA | COL | | | X | | | | | | |
| CRYPTOMONAS | CEL | | | | | | | 4 | 4.0 | 119 |
| CRYPTOMONAS EROSA | CEL | 4 | 5.9 | 96 | 4 | 3.1 | 288 | | | |
| CRYPTOMONAS REFLEXA | CEL | | | | | | X | | | |
| DINOBRYON BAVARICUM | CEL | 3 | 13.7 | 223 | | | | | | X |
| ELAKATOTHRIX GELATINOSA | CEL | | | | | 0.9 | 86 | | | |
| EUGLENA GRACILIS | CEL | | | | | | X | | | |
| FLAGELLATE #2 | CEL | | 3.9 | 64 | | | | | 3.6 | 71 |
| FRAGILARIA CROTONENSIS | CEL | | | X | | | X | | | |
| FRANCEIA | CEL | | 2.0 | 32 | | | | | | |
| GOLENKINIA | CEL | | 3.9 | 64 | | | | | | |
| GOLENKINIA RADIATA V. BREVISPINA | CEL | | | | | | | | | X |
| GOMPHONEMA TRUNCATUM V. CAPITATUM | CEL | | | X | | | | | | |
| GYMNODINIUM ALBULUM | CEL | | | | | 0.6 | 58 | | | |
| GYMNODINIUM ORDINATUM | CEL | | 5.9 | 96 | | | | | | |
| KIRCHNERIELLA CONTORTA | CEL | | | | | | | | | X |
| LAGERHEIMIA QUADRISETA | CEL | | | | | | | | 1.2 | 24 |
| LYNGBYA | FIL | | | | | | | | 4.8 | 95 |
| MALLOMONAS | CEL | | | | | | | | | X |
| MELOSIRA | CEL | | | | | | X | | | |
| MELOSIRA DISTANS | CEL | | 11.7 | 191 | 12 | 12.2 | 1124 | | 3.6 | 71 |
| MELOSIRA GRANULATA | CEL | | | X | | 0.9 | 86 | | | |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | | | 0.6 | 58 | | 3.6 | 71 |
| MERISMOPEDIA MINIMA | COL | | | | | | | | 2.4 | 48 |
| MICRACTINIUM | COL | | | X | | | | | | |
| MICROCYSTIS INCERTA | COL | | 2.0 | 32 | | 0.3 | 29 | | 4.8 | 95 |
| NOUSEOTIA | CEL | | | | | | X | 2 | 9.5 | 167 |
| NAVICULA #1 | CEL | | 3.9 | 64 | | | | | | |
| NAVICULA #2 | CEL | | | | | | X | | | |
| NITZSCHIA | CEL | | 2.0 | 32 | | | | | | |
| NITZSCHIA #1 | CEL | | | | | | | | 7.2 | 143 |
| NITZSCHIA #2 | CEL | | | | | | | | | X |
| NITZSCHIA ACICULARIS | CEL | | | | | | | | 4.8 | 95 |
| OSCILLATORIA | FIL | | | X | | 3.4 | 317 | | | X |
| PERIDINIUM INCONSPICUUM | CEL | | | | | | | | 2.4 | 48 |
| RAPHIDIOPSIS CURVATA | FIL | | | | | | | | 7.2 | 143 |
| SCENEDESMUS BIJUGA | COL | | | | | 0.3 | 29 | | | |
| SCENEDESMUS QUADRICAUDA | COL | | | | | | | | 1.2 | 24 |
| SCHROEDERIA SETIGERA | CEL | | | | | | | | 3.6 | 71 |
| SELENASTRUM MINUTUM | CEL | | | | | | | | | X |
| SKELETONEMA POTAMOS | CEL | | 5.9 | 96 | | | | | | |
| STAURASTRUM | CEL | | | | | | X | | | |
| STAURASTRUM #1 | CEL | | | | | | | | | X |
| STAURASTRUM CUSPIDATUM | CEL | | | | | | X | | | |
| STAURASTRUM TETRACERUM | CEL | | | | | | | | | X |
| SYNEDRA ACUS | CEL | | | X | | | | | | X |
| SYNEDRA ULNA | CEL | | | X | | 0.3 | 29 | | | |
| TABELLARIA FENESTRATA | CEL | 11 | 9.8 | 159 | 11 | 66.1 | 6383 | | 4.8 | 95 |
| TETRAEDRON MUTICUM | CEL | | | | | | | | 1.2 | 24 |
| TRACHELOMONAS HISPIDA | CEL | | | | | | | | 1.2 | 24 |
| TRACHELOMONAS LACUSTRIS | CEL | | | X | | | | | | |
| TREUBARIA SETIGERUM | CEL | | | | | | | | | X |
| TOTAL | | | | 1627 | | | 9196 | | | 1975 |

LAKE NAME: LAKE ERLING
STORET NUMBER: 0508

NYGAARD TROPHIC STATE INDICES

| DATE | 03 25 74 | 06 03 74 | 10 17 74 |
|---|---|---|---|
| MYXOPHYCEAN | 2.00 E | 2.50 E | 1.00 E |
| CHLOROPHYCEAN | 5.00 E | 1.50 E | 4.50 E |
| EUGLENOPHYTE | 0.43 E | 0.37 E | 0.36 E |
| DIATOM | 0.67 E | 1.50 E | 0.83 E |
| COMPOUND | 12.0 E | 7.00 E | 10.0 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 25 74 | 06 03 74 | 10 17 74 |
|---|---|---|---|
| GENUS | 07 | 01 | 01 |
| SPECIES | 03 | 00 | 00 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 25 74 | 06 03 74 | 10 17 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 2.10 | 2.05 | 2.20 |
| NUMBER OF TAXA | S | 23.00 | 24.00 | 34.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 3.00 | 3.00 | 3.00 |
| MAXIMUM DIVERSITY | MAXH | 4.52 | 4.58 | 5.09 |
| MINUMUM DIVERSITY | MINH | 0.10 | 0.23 | 0.21 |
| TOTAL DIVERSITY | D | 6079.50 | 2394.40 | 4353.80 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 2895.00 | 1168.00 | 1979.00 |
| EVENESS COMPONENT | J | 0.46 | 0.45 | 0.43 |
| RELATIVE EVENESS | RJ | 0.46 | 0.42 | 0.41 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 125.87 | 48.67 | 58.21 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 1715.00 | 491.00 | 1104.00 |

LAKE NAME: LAKE ERLING CONTINUED
STORET NUMBER: 3508

| TAXA | FORM | 03 25 74 S | 03 25 74 BC | 03 25 74 ALGAL UNITS PER ML | 06 03 74 S | 06 03 74 BC | 06 03 74 ALGAL UNITS PER ML | 10 17 74 S | 10 17 74 BC | 10 17 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| ACTINASTRUM HANTZSCHII V. FLUVIATILE | CEL | | | | | | | | | X |
| ANABAENA | FIL | | | | | | X | | | |
| ANKISTRODESMUS FALCATUS V. ACICULARIS | CEL | | 1.8 | 51 | | | X | | | |
| APHANIZOMENON FLOS-AQUAE | FIL | | | | | | X | | | |
| CERATIUM HIRUNDINELLA | CEL | | | | | | X | | | |
| CHLOROPHYTAN COCCOID CELLED COLONY | COL | | | | | | X | | | |
| CHROOMONAS ACUTA | CEL | 4 | 4.4 | 128 | 2 | 18.4 | 215 | | | |
| CHRYSOPHYTAN CELL | CEL | | 0.9 | 26 | | | | | | |
| CLOSTERIUM #1 | CEL | | | | | | | | | X |
| CLOSTERIUM #2 | CEL | | | X | | | | | | |
| CLOSTERIUM #3 | CEL | | | | | | X | | | |
| CLOSTERIUM #4 | CEL | | | | | | X | | | |
| CRUCIGENIA FENESTRATA | COL | | 0.9 | 26 | | | | | | |
| CRUCIGENIA QUADRATA | COL | | | | | | | | | X |
| CRYPTOMONAS #1 | CEL | | | | | | | | | X |
| CRYPTOMONAS EROSA | CEL | 3 | 9.7 | 282 | 5 | 2.7 | 31 | 3 | 9.8 | 190 |
| CRYPTOMONAS MARSSONII | CEL | | | X | | | | | | |
| CYANOPHYTAN FILAMENT | FIL | | 0.9 | 26 | | | | | | |
| CYCLOTELLA MENEGHINIANA | CEL | | | | | | | | | X |
| CYMBELLA | CEL | | | | | | X | | | X |
| DACTYLOCOCCOPSIS | CEL | 5 | 5.3 | 154 | 3 | 28.9 | 338 | | 3.8 | 74 |
| DICTYOSPHAERIUM PULCHELLUM | COL | | | | | | | | 1.9 | 38 |
| DINOBRYON BAVARICUM | CEL | | | | | | | | | X |
| DINOBRYON DIVERGENS | CEL | | | X | | | X | | | |
| DINOBRYON SOCIALE | CEL | | | | | | | | 1.9 | 38 |
| EUDORINA ELEGANS | COL | | | X | | | | | | |
| EUGLENA | CEL | | | | | | | | | X |
| EUGLENA ACUS | CEL | | | | | | X | | | |
| FUNOTIA | CEL | | | X | | | X | | | |
| FUNOTIA PECTINALIS V. VENTRICOSA | CEL | | | | | | | 2 | 1.9 | 38 |
| GLENODINIUM OCULATUM | CEL | | | | | | X | | | |
| KIRCHNERIELLA | CEL | | | | | | | | | X |
| LEPOCINCLIS | CEL | | | | | | X | | | |
| MELOSIRA DISTANS | CEL | 1 | 59.2 | 1715 | | | X | 4 | 13.9 | 267 |
| MELOSIRA GRANULATA | CEL | 2 | 13.3 | 384 | 1 | 42.0 | 491 | 1 | 55.9 | 1104 |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | | | | X | | | X |
| MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS | CEL | | | | | | | | | X |
| MICROCYSTIS AERUGINOSA | COL | | | | | | X | | | |
| MICROCYSTIS INCERTA | COL | | | | | 2.7 | 31 | | | |
| NOUGEOTIA | FIL | | | | | | | | | X |
| NAVICULA | CEL | | | | | | | | | X |
| OOCYSTIS | CEL | | | | | | | 5 | 7.7 | 152 |
| OSCILLATORIA | FIL | | | | | | | | | X |
| PEDIASTRUM DUPLEX V. ? | COL | | | | | | X | | | |
| PEDIASTRUM TETRAS V. TETRAODON | COL | | | | | | | | | X |
| PENNATE DIATOM | CEL | | | | | | | | 1.9 | 38 |
| PHACUS | CEL | | | | | | | | | X |
| PHACUS CHLOROPLASTES | CEL | | | | | | X | | | |
| PHACUS MEGALOPSIS | CEL | | | | | | | | | X |
| PHACUS PLEURONECTES ? | CEL | | | X | | | | | | |
| PINNULARIA | CEL | | | | | | | | | X |
| SCENEDESMUS BIJUGA | COL | | | X | | 2.7 | 31 | | | |
| SCENEDESMUS DENTICULATUS | COL | | | | | | | | | X |
| SCENEDESMUS INTERMEDIUS | COL | | 1.8 | 51 | | | | | | |
| SPERMATOZOOPSIS | CEL | | | | | | | | | X |
| STAURASTRUM | CEL | | | | | | | | | X |
| SYNEDRA #1 | CFL | | | | | | | | | X |
| SYNEDRA #2 | CFL | | 0.9 | 26 | | | | | | |
| SYNEDRA ULNA | CEL | | | X | | | | | | |
| SYNURA UVELLA | CFL | | | X | | | | | | |
| TETRAEDRON MINIMUM V. SCROBICULATUM | CEL | | | | | | | | | X |
| TETRAEDRON TRIGONUM V. GRACILE | CFL | | | | 4 | 2.7 | 31 | | | X |
| TETRASTRUM STAUROGENIAEFORME | COL | | 0.9 | 26 | | | | | | |
| TRACHELOMONAS | CEL | | | X | | | | | | |
| TRACHELOMONAS INTERMEDIA | CEL | | | X | | | | | | |
| TRACHELOMONAS VOLVOCINA | CEL | | | | | | | | 1.9 | 38 |
| TOTAL | | | | 2895 | | | 1168 | | | 1979 |

LAKE NAME: GRAND LAKE
STORET NUMBER: 3509

NYGAARD TROPHIC STATE INDICES

| DATE | 03 26 74 | 06 04 74 | 10 16 74 |
|---|---|---|---|
| MYXOPHYCEAN | 2.67 E | 3.33 E | 3.00 E |
| CHLOROPHYCEAN | 7.67 E | 5.33 E | 7.67 E |
| EUGLENOPHYTE | 0.16 ? | 0.23 E | 0.06 ? |
| DIATOM | 0.67 E | 1.00 E | 1.50 E |
| COMPOUND | 13.3 E | 13.0 E | 13.3 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 26 74 | 06 04 74 | 10 16 74 |
|---|---|---|---|
| GENUS | 24 | 18 | 13 |
| SPECIES | 07 | 07 | 04 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 26 74 | 06 04 74 | 10 16 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 4.18 | 3.28 | 3.15 |
| NUMBER OF TAXA | S | 59.00 | 57.00 | 50.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 2.00 | 2.00 | 2.00 |
| MAXIMUM DIVERSITY | MAXH | 5.88 | 5.83 | 5.64 |
| MINUMUM DIVERSITY | MINH | 0.34 | 0.31 | 0.34 |
| TOTAL DIVERSITY | D | 96570.54 | 501157.76 | 54148.50 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 23103.00 | 152792.00 | 17190.00 |
| EVENESS COMPONENT | J | 0.71 | 0.56 | 0.56 |
| RELATIVE EVENESS | RJ | 0.71 | 0.57 | 0.56 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 391.58 | 2680.56 | 343.80 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 3813.00 | 52408.00 | 3523.00 |

LAKE NAME: GRAND LAKE CONTINUED
STORET NUMBER: 0509

| TAXA | FORM | 03 26 74 IS | 03 26 74 SC | 03 26 74 ALGAL UNITS PER ML | 06 04 74 IS | 06 04 74 SC | 06 04 74 ALGAL UNITS PER ML | 10 16 74 IS | 10 16 74 SC | 10 16 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| ACTINASTRUM GRACILIMUM | CEL | | | X | | | | | | |
| ANABAENA | FIL | 11 | 3.6 | 822 | | | | | | |
| ANABAENA PLANCTONICA | FIL | | | | | 0.9 | 1304 | | | |
| ANABAENOPSIS CIRCULARIS | FIL | | | | | 2.9 | 4433 | | 2.0 | 952 |
| ANKISTRODESMUS FALCATUS | CEL | | | X | | 0.2 | 261 | | | X |
| ANKISTRODESMUS FALCATUS V. ACICULARIS | CEL | | 7.4 | 1719 | | | X | | | |
| ANKISTRODESMUS FALCATUS V. MIRABILIS | CEL | | | | | | X | | | X |
| CENTRIC DIATOM | CEL | | | | | | X | 14 | 17.0 | 7024 |
| CHLAMYDOMONAS | CEL | 14 | 9.1 | 2093 | | | | | | |
| CHLOROCOCCALEAN COLONY #9 | COL | | | | | | X | | | |
| CHLOROGONIUM | CEL | | 1.0 | 224 | | | | | | |
| CHROOCOCCUS | COL | | | | | | | | | X |
| CHROOCOCCUS DISPERSUS | COL | | | | 15 | 4.9 | 7561 | | | |
| CHROOMONAS ACUTA | CRL | | | X | | | X | | | |
| CLOSTERIUM | CEL | | | | | | X | | | X |
| COELASTRUM CAMBRICUM V. INTERMEDIUM | COL | | | | | | X | | 0.2 | 35 |
| COSMARIUM #1 | CEL | | | X | | | X | | | X |
| COSMARIUM #2 | CEL | | | | | | | | | X |
| COSMARIUM #3 | CEL | | | X | | | | | | |
| CRUCIGENIA TETRAPEDIA | COL | | | X | | | | | | |
| CRUCIGENIA TRUNCATA | COL | | | | | | X | | 0.2 | 35 |
| CRYPTOMONAS EROSA | CEL | | 4.5 | 1047 | | 1.5 | 2347 | | 0.4 | 70 |
| CYANOPHYTAN COLONY | COL | | 1.6 | 374 | | | | | | |
| CYMATOPLEURA ELLIPTICA | CEL | | | | | | X | | | |
| CYMATOPLEURA SOLEA | CEL | | | X | | | X | | | |
| CYMBELLA MINUTA | CEL | | | X | | | | | | |
| DACTYLOCOCCOPSIS | CEL | | 7.1 | 1645 | 11 | 34.3 | 52408 | 2 | 20.5 | 3523 |
| DACTYLOCOCCOPSIS IRREGULARIS | CEL | | | | | | X | | | |
| DICTYOSPHAERIUM PULCHELLUM | COL | | 0.6 | 150 | | | X | | | |
| ELAKATOTHRIX GELATINOSA | CEL | | | | | 0.5 | 782 | | | |
| EUGLENA | CEL | | 0.3 | 75 | | | | | | |
| EUGLENA #1 | CEL | | | X | | | | | | |
| EUGLENA #2 | CEL | | | | | | | | | X |
| EUGLENA GRACILIS | CEL | | | | | | X | | | |
| EUGLENA TRIPTERIS | CEL | | | | | | X | | | |
| FLAGELLATE #4 | CEL | | | | | 0.2 | 261 | | | |
| FLAGELLATES | CEL | 5 | 18.7 | 2467 | | | | | | |
| FRANCEIA | CEL | | | X | | | | | | |
| GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME | CEL | | | | | | X | | | |
| GLENODINIUM OCULATUM | CEL | | | | | | X | | | |
| GLENODINIUM PENARDIFORME | CEL | | | X | | | | | | |
| GOLENKINIA RADIATA ? V. BREVISPINA | CEL | | | | | | | | | X |
| GYMNODINIUM | CEL | | | X | | | | | | |
| GYMNODINIUM ALBULUM | CEL | | | | | 0.2 | 261 | | | |
| GYROSIGMA | CEL | | | | | | X | | | |
| KIRCHNERIELLA CONTORTA | CEL | | | | | | | | | X |
| LAGERHEIMIA | CEL | | 0.3 | 75 | | | | | | |
| LUNATE CELL | CEL | | 1.0 | 224 | | | X | | | |
| LYNGBYA | FIL | | 0.3 | 75 | | | | | | |
| LYNGBYA CONTORTA | FIL | | | | 31 | 6.8 | 10429 | | 1.2 | 211 |
| MELOSIRA DISTANS | CEL | | | | | 2.0 | 3129 | | 0.4 | 70 |
| MELOSIRA GRANULATA | CEL | 12 | 3.2 | 748 | | 0.3 | 521 | | 0.8 | 141 |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | 1.0 | 224 | | 0.2 | 261 | | | X |
| MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS | CEL | | 3.6 | 822 | | 0.3 | 521 | | 2.0 | 352 |
| MELOSIRA VARIANS | CEL | | | | | | X | | | |
| MERISMOPEDIA GLAUCA | COL | | | | | 2.4 | 3650 | | 1.0 | 176 |
| MERISMOPEDIA TENUISSIMA | COL | | 1.3 | 299 | | 8.2 | 12515 | | 11.7 | 2008 |

LAKE NAME: GRAND LAKE
STOREY NUMBER: 0500

CONTINUED

| TAXA | FORM | 03 26 74 S | 03 26 74 SC | 03 26 74 ALGAL UNITS PER ML | 06 04 74 S | 06 04 74 SC | 06 04 74 ALGAL UNITS PER ML | 10 16 74 S | 10 16 74 SC | 10 16 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| MESOSTIGMA VIRIDIS | CEL | | | | | | | | 0.2 | 35 |
| MICROCYSTIS INCERTA | COL | | | X | | 7.5 | 11472 | 3 | 14.8 | 2537 |
| NITZSCHIA | CEL | | | | | 1.0 | 1564 | | | |
| NITZSCHIA #1 | CEL | | 7.4 | 1719 | | | | | | X |
| NITZSCHIA #2 | CEL | | 3.6 | 822 | | | | | | |
| NITZSCHIA #3 | CEL | | 0.3 | 75 | | | | | | |
| NITZSCHIA HOLSATICA | CEL | | 4.5 | 1047 | | | | | | |
| OOCYSTIS | CEL | | | X | | | | | | X |
| OSCILLATORIA | FIL | | | | | | | 1 | 17.6 | 3030 |
| OSCILLATORIA ? | FIL | | 2.9 | 673 | | | | | | |
| OSCILLATORIA LIMNETICA | FIL | | 0.3 | 75 | | 3.4 | 5215 | | | |
| PEDIASTRUM BORYANUM | COL | | | X | | | X | | | X |
| PEDIASTRUM DUPLEX V. ? | COL | | | X | | | | | | |
| PEDIASTRUM SIMPLEX | COL | | | X | | | X | | | X |
| PEDIASTRUM TETRAS V. TETRAODON | COL | | 0.6 | 150 | | | | | 0.2 | 35 |
| PENNATE DIATOM | CEL | | | | | | | | | X |
| PERIDINIUM | CEL | | | | | | | | | X |
| PERIDINIUM INCONSPICUUM | CEL | | | | | 0.2 | 261 | | | |
| PERIDINIUM UMBONATUM | CEL | | | X | | | | | | |
| PHACUS CAUDATUS | CEL | | | X | | | | | | X |
| PHACUS MEGALOPSIS | CEL | | | X | | | X | | | |
| PHACUS PSEUDONORDSTEDTII | CEL | | | | | | X | | | |
| PHACUS TORTUS | CEL | | | | | | X | | | |
| RAPHIDIOPSIS CURVATA | FIL | | | | | | | | 0.6 | 106 |
| SCENEDESMUS ABUNDANS | COL | | 0.3 | 75 | | | X | | | X |
| SCENEDESMUS ACUMINATUS | COL | | 0.6 | 150 | | | | | | |
| SCENEDESMUS ARMATUS V. ? | COL | | | | | | | | | X |
| SCENEDESMUS BICAUDATUS | COL | | | | | | | | | X |
| SCENEDESMUS BIJUGA | COL | | | | | | X | | 0.6 | 106 |
| SCENEDESMUS BREVISPINA | COL | | | | | | | | | X |
| SCENEDESMUS DIMORPHUS | COL | | | | | 0.2 | 261 | | 0.2 | 35 |
| SCENEDESMUS QUADRICAUDA | COL | | 1.3 | 299 | | 0.7 | 1043 | | 0.8 | 141 |
| SCHROEDERIA SETIGERA | CEL | | | X | | | | | | X |
| STAURASTRUM | CEL | | | X | | | | | | |
| STAURASTRUM #1 | CEL | | | | | | X | | | |
| STEPHANODISCUS ASTRAEA V. MINUTULA | CEL | 3 | 16.5 | 3813 | 2 | 15.2 | 23206 | | | X |
| SURIRELLA | CEL | | | | | | | | | X |
| SURIRELLA TENERA | CEL | | | | | | X | | | |
| SYNEDRA | CEL | | | | | | | 5 | 7.0 | 1198 |
| SYNEDRA ACUS | CEL | | | | 4 | 5.6 | 8634 | | | |
| TABELLARIA FENESTRATA | CEL | | | | | | X | | | |
| TETRAEDRON CAUDATUM V. LONGISPINUM | CEL | | 1.5 | 224 | | | | | | X |
| TETRAEDRON GRACILE | CEL | | | | | 0.2 | 261 | | | X |
| TETRAEDRON GRACILE ? | CEL | | | X | | | | | | |
| TETRAEDRON MINIMUM | CEL | | 0.3 | 75 | | 0.2 | 261 | | 0.2 | 35 |
| TETRAEDRON MUTICUM | CEL | | 0.3 | 75 | | | | | | |
| TETRASTRUM ELEGANS | COL | | | X | | | | | | |
| TETRASTRUM HETERACANTHUM | COL | | | X | | | | | 0.2 | 35 |
| TETRASTRUM SPP. | COL | | 3.2 | 748 | | | | | | |
| TETRASTRUM STAUROGENIAFORME | COL | | | X | | | | | | X |
| TRACHELOMONAS | CFL | | | X | | | | | | |
| TRACHELOMONAS SCABRA V. LONGICOLLIS | CEL | | | | | | X | | | |
| TOTAL | | | | 23103 | | | 152792 | | | 17190 |

LAKE NAME: LAKE HAMILTON
STORET NUMBER: 0510

NYGAARD TROPHIC STATE INDICES

| DATE | 03 27 74 | 06 05 74 | 10 15 74 |
|---|---|---|---|
| MYXOPHYCEAN | 01/0 E | 9.00 E | 2.00 E |
| CHLOROPHYCEAN | 03/0 E | 10.0 E | 6.75 E |
| EUGLENOPHYTE | 0/04 ? | 0.05 ? | 0.09 ? |
| DIATON | 0.67 E | 0.50 E | 1.25 E |
| COMPOUND | 10/0 E | 23.0 E | 10.7 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 27 74 | 06 05 74 | 10 15 74 |
|---|---|---|---|
| GENUS | 06 | 08 | 12 |
| SPECIES | 03 | 00 | 03 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 27 74 | 06 05 74 | 10 15 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 2.41 | 3.58 | 3.59 |
| NUMBER OF TAXA | S | 24.00 | 37.00 | 62.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 6.00 | 6.00 | 6.00 |
| MAXIMUM DIVERSITY | MAXH | 4.58 | 5.21 | 5.95 |
| MINUMUM DIVERSITY | MINH | 0.37 | 0.22 | 0.15 |
| TOTAL DIVERSITY | D | 11199.27 | 7296.04 | 20168.62 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 4647.00 | 2038.00 | 5618.00 |
| EVENESS COMPONENT | J | 0.53 | 0.69 | 0.60 |
| RELATIVE EVENESS | RJ | 0.52 | 0.68 | 0.60 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 193.63 | 55.08 | 90.61 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 2543.00 | 528.00 | 1976.00 |

Reproduced from best available copy.

LAKE NAME: LAKE HAMILTON
STORET NUMBER: 0510

CONTINUED

| TAXA | FORM | 33 27 74 IS | 33 27 74 EC | 33 27 74 ALGAL UNITS PER ML | 06 05 74 IS | 06 05 74 BV | 06 05 74 ALGAL UNITS PER ML | 10 15 74 IS | 10 15 74 EC | 10 15 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| ANABAENA | FIL | | | | | 5.5 | 113 | | | X |
| ANABAENA #1 | FIL | | | | | | | | 1.4 | 98 |
| ANABAENA #2 | FIL | | 1.1 | 49 | 3 | 3.7 | 76 | | | X |
| ANKISTRODESMUS FALCATUS | CEL | | | X | | | | | 3.5 | 198 |
| ANKISTRODESMUS FALCATUS V. MIRABILIS | CEL | | 6.3 | 293 | | | X | | | |
| APHANIZOMENON FLOS-AQUAE | FIL | | | | | | X | | | |
| APHANOTHECE | COL | | | | | | X | | | |
| ASTERIONELLA FORMOSA | CEL | | 1.1 | 49 | | | | | | |
| ATTHEYA | CEL | | | | | | | | | X |
| CENTRIC DIATOMS | CEL | 1 | 54.7 | 2543 | | | | | | |
| CERATIUM HIRUNDINELLA F. BRACHYCERAS | CEL | | | | | | X | | | X |
| CHLOROGONIUM | CEL | | | | | | | | | X |
| CHROOMONAS ACUTA | CEL | | 1.1 | 49 | | 3.7 | 76 | | | X |
| CLOSTERIUM | CEL | | | | | | | | | X |
| COELASTRUM PROROSCIDEUM | COL | | | | | | | | | X |
| COELASTRUM RETICULATUM V. POLYCHORDON | COL | | | | | | | | | X |
| COELASTRUM SPHAERICUM | COL | | | | | 1.9 | 39 | | | |
| COSMARIUM | CEL | | | | | | | | | X |
| CRUCIGENIA APICULATA | COL | | | | | | | | 0.7 | 40 |
| CRUCIGENIA CRUCIFERA | COL | | | | | | X | | | |
| CRUCIGENIA FENESTRATA | COL | | | | | | | | | X |
| CRUCIGENIA TETRAPEDIA | COL | | 1.1 | 49 | | | | | | X |
| CRUCIGENIA TRUNCATA | COL | | | | | | | | | X |
| CRYPTOMONAS EROSA | CEL | 4 | 5.3 | 265 | 5 | 3.7 | 75 | 7 | 7.7 | 435 |
| CRYPTOMONAS MARSSONII | CEL | | | X | | | | | | |
| CRYPTOMONAS REFLEXA | CEL | | | | | | X | | | |
| CYCLOTELLA STELLIGERA | CEL | | | X | | 1.9 | 39 | | | |
| CYMBELLA | CEL | | | X | | | | | | |
| DACTYLOCOCCOPSIS | CEL | | | | | 9.3 | 189 | | | |
| DACTYLOCOCCOPSIS IRREGULARIS | CEL | | | | | | | 13 | 35.2 | 1976 |
| DICTYOSPHAERIUM PULCHELLUM | COL | | | | | | X | | | X |
| DINOBRYON | CEL | | | | | | | | 0.7 | 40 |
| DINOBRYON CYLINDRICUM | CEL | | | X | | | | | | |
| EUASTRUM DENTICULATUM | CEL | | | | | | | | | X |
| EUGLENA | CEL | | | | | | | | | X |
| EUGLENA ACUS | CEL | | | | | | | | | X |
| FRAGILARIA CROTONENSIS | CEL | | 2.1 | 98 | | | | | | X |
| FRANCEIA | CEL | | | | | | | | | X |
| GOLENKINIA | CEL | | | | | | | | | X |
| GOMPHONEMA | CEL | | | X | | | | | | |
| GONATOZYGON MONTAENIUM | CEL | | | | | | | | | X |
| GYMNODINIUM ORDINATUM | CEL | | | | | | X | | | X |
| KIRCHNERIELLA | CEL | | | | | | | | 2.4 | 158 |
| LAGERHEIMIA SUBSALSA | CEL | | | | | | | | | X |
| LYNGBYA | FIL | | | | 12 | 25.9 | 528 | | 4.2 | 237 |
| MALLOMONAS | CEL | | | | | | X | | | X |
| MELOSIRA DISTANS | CEL | 13 | 11.6 | 538 | 1 | 3.7 | 76 | | | X |
| MELOSIRA GRANULATA | CEL | 12 | 6.3 | 293 | 11 | 7.4 | 151 | 4 | 3.5 | 198 |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | X | | | | | | |
| MERISMOPEDIA MINIMA | COL | | | | 4 | 14.8 | 302 | | 3.5 | 198 |
| MESOSTIGMA VIRIDIS | CEL | | | | | 1.9 | 38 | | | X |
| MICROCYSTIS AERUGINOSA | COL | | | | | | X | | | |
| NOUGEOTIA | FIL | | | | | | | | | X |
| NAVICULA | CEL | | | X | | | | | | |
| NITZSCHIA | CEL | | | | | 7.4 | 151 | | | |
| NITZSCHIA #1 | CEL | | 5.3 | 265 | | | | | 3.5 | 198 |
| NITZSCHIA #2 | CEL | | 1.1 | 49 | | | X | | | |
| NITZSCHIA #3 | CEL | | | | | | X | | | |
| OSCILLATORIA | FIL | | | | | | | | | X |
| PEDIASTRUM BIRADIATUM | COL | | | | | | X | | | |

LAKE NAME: LAKE HAMILTON
STOREY NUMBER: 0510

CONTINUED

| TAXA | FORM | 03 27 74 S | 03 27 74 SC | 03 27 74 ALGAL UNITS PER ML | 06 25 74 S | 06 25 74 SC | 06 25 74 ALGAL UNITS PER ML | 10 15 74 S | 10 15 74 SC | 10 15 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| PEDIASTRUM BIRADIATUM V. LONGECORNUTUM | COL | | | | | | | | | X |
| PEDIASTRUM TETRAS V. TETRAODON | COL | | | | | | | | | X |
| PERIDINIUM | CEL | | | X | | | | | | |
| PERIDINIUM INCONSPICUUM | CEL | | | | | | | | | X |
| PHACUS | CEL | | | | | | | | | X |
| RAPHIDIOPSIS ? | FIL | | | | 1.9 | | 38 | | | |
| RAPHICIOPSIS CURVATA ? | FIL | | | | | | | 4.0 | | 777 |
| RHIZOSOLENIA | CEL | 5 | 3.2 | 147 | | | | 0.7 | | 40 |
| SCENEDESMUS ABUNDANS | COL | | | | | | X | 0.7 | | 40 |
| SCENEDESMUS DENTICULATUS | COL | | | | 1.9 | | 38 | 2.1 | | 119 |
| SCENEDESMUS DIMORPHUS | COL | | | | 1.9 | | 38 | | | X |
| SCENEDESMUS INTERMEDIUS | COL | | | | | | | | | X |
| SCENEDESMUS INTERMEDIUS V. BICAUDATUS | COL | | | | | | | 2.1 | | 119 |
| SCENEDESMUS QUADRICAUDA | COL | | | | | | | 0.7 | | 40 |
| STAURASTRUM #1 | CEL | | | | | | X | | | |
| STAURASTRUM TETRACERUM | CEL | | | | | | | | | X |
| STEPHANODISCUS | CEL | | | | | | | 11 | 9.8 | 555 |
| SYNEDRA #1 | CEL | | | | | | | 4.2 | | 237 |
| SYNEDRA ACUS | CEL | | | | | | X | | | |
| SYNEDRA CAPITATA | CEL | | | X | | | | | | |
| SYNEDRA DELICATISSIMA | CEL | | | | | | | 5 | 1.4 | 79 |
| SYNEDRA ULNA | CEL | | | | | | X | | | |
| TABELLARIA FENESTRATA | CEL | | | X | 1.9 | | 38 | | | |
| TETRAEDRON CAUDATUM V. LONGISPINUM | CEL | | | | | | | 0.7 | | 40 |
| TETRAEDRON CONSTRICTUM | CEL | | | | | | X | | | |
| TETRAEDRON LIMNETICUM | CEL | | | | | | | | | X |
| TETRAEDRON MINIMUM | CEL | | | | | | | 3.5 | | 198 |
| TETRAEDRON MINIMUM V. SCROBICULATUM | CEL | | | | | | | | | X |
| TETRAEDRON TRIGONUM | CEL | | | | | | | | | X |
| TETRAEDRON TRIGONUM V. GRACILE | CEL | | | | 1.9 | | 38 | | | |
| TETRASTRUM HETERACANTHUM | COL | | | | | | | 0.7 | | 40 |
| TRACHELOMONAS | CEL | | | | | | X | | | |
| TREUBARIA SETIGERUM | CEL | | | | | | | 1.4 | | 79 |
| TOTAL | | | | 4647 | | | 2338 | | | 5618 |

LAKE NAME: MILLWOOD LAKE
STORET NUMBER: 0511

NYGAARD TROPHIC STATE INDICES

| DATE | 03 25 74 | 06 03 74 | 10 17 74 |
|---|---|---|---|
| MYXOPHYCEAN | 03/0 E | 06/0 E | 2.00 E |
| CHLOROPHYCEAN | 06/3 E | 11/0 E | 8.00 E |
| EUGLENOPHYTE | 0/09 ? | 0.06 ? | 0.30 E |
| DIATOM | 0.27 ? | 0.44 E | 0.67 E |
| COMPOUND | 12/0 E | 22/0 E | 17.0 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 25 74 | 06 03 74 | 10 17 74 |
|---|---|---|---|
| GENUS | 11 | 08 | 01 |
| SPECIES | 03 | 03 | 00 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 25 74 | 06 03 74 | 10 17 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 3.33 | 3.84 | 2.73 |
| NUMBER OF TAXA | S | 29.00 | 40.00 | 31.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 3.00 | 3.00 | 3.00 |
| MAXIMUM DIVERSITY | MAXH | 4.86 | 5.32 | 4.95 |
| MINUMUM DIVERSITY | MINH | 0.12 | 0.08 | 0.28 |
| TOTAL DIVERSITY | D | 9780.21 | 27605.76 | 3458.91 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 2937.00 | 7189.00 | 1267.00 |
| EVENESS COMPONENT | J | 0.69 | 0.72 | 0.55 |
| RELATIVE EVENESS | RJ | 0.68 | 0.72 | 0.53 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 101.28 | 179.73 | 40.87 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 698.00 | 2010.00 | 438.00 |

LAKE NAME: MILLWOOD LAKE CONTINUED
STORET NUMBER: 0511

| TAXA | FORM | 03 25 74 IS | 03 25 74 SC | 03 25 74 ALGAL UNITS PER ML | 06 03 74 IS | 06 03 74 SC | 06 03 74 ALGAL UNITS PER ML | 10 17 74 IS | 10 17 74 SC | 10 17 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| ACHNANTHES MICROCEPHALA | CEL | | | | | | X | | | |
| ANABAENA | FIL | | 1.3 | 37 | | 7.5 | 541 | | | |
| ANKISTRODESMUS | CEL | | | X | | | | | | |
| ANKISTRODESMUS FALCATUS | CEL | | 2.5 | 73 | | 1.6 | 116 | | | X |
| ANKISTRODESMUS FALCATUS V. ACICULARIS | CEL | | | | | | | | | X |
| APHANIZOMENON FLOS-AQUAE | FIL | | | | | 1.1 | 77 | | | |
| ASTERIONELLA FORMOSA | CEL | | 2.5 | 73 | | | X | | | |
| ATTHEYA ? | CEL | | | | | 0.5 | 39 | | | |
| CARTERIA KLEBSII | CEL | 14 | 7.5 | 220 | | | | | | |
| CENTRIC DIATOMS | CEL | | | | | | | 11 | 34.6 | 498 |
| CHROOMONAS ACUTA | CEL | 22 | 23.8 | 698 | | | | 15 | 15.4 | 195 |
| COCCONEIS | CEL | | | X | | | | | | |
| COELASTRUM SPHAERICUM | COL | | | | | 0.5 | 39 | | | |
| CRUCIGENIA TETRAPEDIA | COL | | | | | | | | | X |
| CRYPTOMONAS | CEL | | | | | | | 14 | 3.9 | 49 |
| CRYPTOMONAS EROSA | CEL | 3 | 7.5 | 220 | | 1.6 | 116 | | | |
| CRYPTOMONAS MARSSONII | COL | | | X | | | X | | | |
| CYCLOTELLA | CEL | | | X | | | | | | |
| CYCLOTELLA MENEGHINIANA | CEL | | | | | | | | | X |
| CYMBELLA | CEL | | | X | | | | | | X |
| CYMBELLA VENTRICOSA | CEL | | | | | | X | | | |
| DACTYLOCOCCOPSIS | CEL | | 2.5 | 73 | | 5.9 | 425 | | 7.7 | 97 |
| DINOBRYON BAVARICUM | CEL | | | | 3 | 7.0 | 502 | | | |
| DINOBRYON SOCIALE | CEL | | | | | | | | | X |
| EUASTRUM | CEL | | | | | | | | | X |
| EUDORINA ELEGANS | COL | | | | | | X | | | |
| EUGLENA TRIPTERIS | CEL | | | | | | | | | X |
| FUNOTIA | CEL | | | | | | | | | X |
| FUNOTIA PECTINALIS V. MINOR F. IMPRESSA | CEL | | | X | | | | | | |
| FLAGELLATE #2 | CEL | 15 | 7.5 | 220 | | 5.9 | 425 | | | |
| FLAGELLATE #4 | CEL | | | | | 0.5 | 39 | | | |
| FRAGILARIA CROTONENSIS | CEL | | | | | 2.7 | 193 | | | |
| GOLENKINIA | CEL | | | | | | | | | X |
| GYMNODINIUM | CEL | | | | | | | | 3.9 | 49 |
| KIRCHNERIELLA | CEL | | | | | 1.6 | 116 | | | |
| KIRCHNERIELLA CONTORTA | CEL | | | | | | X | | | |
| LEPOCINCLIS | CEL | | | | | 1.1 | 77 | | | |
| LYNGBYA | FIL | | | | | 3.2 | 232 | | | X |
| MALLOMONAS | CEL | | | | | | | | | X |
| MELOSIRA DISTANS | CEL | 11 | 23.8 | 698 | 2 | 28.0 | 2013 | 13 | 15.4 | 195 |
| MELOSIRA GRANULATA | CEL | | | | 14 | 5.9 | 425 | 12 | 11.5 | 146 |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | X | | 5.4 | 387 | | | |
| MERISMOPEDIA MINIMA | COL | | | | | 2.2 | 155 | | | |
| MESOSTIGMA VIRIDIS | CEL | | | | 15 | 4.3 | 309 | | | X |
| MICRACTINIUM | COL | | | | | | X | | | |
| MICROCYSTIS INCERTA | COL | | | | | 5.9 | 425 | | | |
| MOUGEOTIA | FIL | | | | | | X | | | |
| NAVICULA | CEL | | | | | | X | | | |
| NAVICULA #1 | CEL | | | X | | | | | | |
| NAVICULA #2 | CEL | | | X | | | | | | X |
| NAVICULA VIRIDULA V. LINEARIS | CEL | | | | | | X | | | |
| NEPHROCYTIUM | CEL | | 5.0 | 147 | | | | | | |
| NITZSCHIA | CEL | | | | | 2.7 | 193 | | | |
| NITZSCHIA #1 | CEL | | 1.3 | 37 | | | | | | |
| NITZSCHIA #2 | CEL | | | X | | | | | | |
| NITZSCHIA #3 | CEL | | | X | | | | | | |
| NITZSCHIA #4 | CEL | | 5.0 | 147 | | | | | | |
| NITZSCHIA ACICULARIS | CEL | | | | | | | | 3.9 | 49 |
| OSCILLATORIA | FIL | | 3.7 | 110 | | | | | | |
| PEDIASTRUM DUPLEX | COL | | | | | | X | | | |
| PEDIASTRUM DUPLEX V. ? | COL | | | | | | | | | X |
| PEDIASTRUM TETRAS V. TETRAODON | COL | | | | | | | | | X |
| PERIDINIUM | CEL | | | | | 1.6 | 116 | | | |
| PERIDINIUM UMBONATUM | CEL | | | | | | | | | X |
| PHACUS LONGICAUDA | CEL | | | | | | | | | X |
| PTEROMONAS ANGULOSA | CEL | | 3.7 | 110 | | | | | | |
| SCENEDESMUS ARCUATUS V. PLATYDISCA | COL | | | | | | | | 3.9 | 49 |
| SCENEDESMUS BICAUDATUS | COL | | | | | 0.5 | 39 | | | |
| SCENEDESMUS DENTICULATUS | COL | | | | | | X | | | |
| SCENEDESMUS DIMORPHUS | COL | | | | | | | | | X |
| SCENEDESMUS OVALTERNUS V. GRAEVENITZII | COL | | 1.3 | 37 | | | | | | |

LAKE NAME: MILLWOOD LAKE
STORET NUMBER: 3511

CONTINUED

| TAXA | FORM | 01 25 74 IS | 01 25 74 SC | 01 25 74 ALGAL UNITS PER ML | 06 03 74 IS | 06 03 74 SC | 06 03 74 ALGAL UNITS PER ML | 10 17 74 IS | 10 17 74 SC | 10 17 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| SCHROEDERIA SETIGERA | CEL | | 1.9I | 37 | | 2.7I | 193 | | | |
| SURIRELLA | CEL | | | X | | | | | | |
| SYNEDRA | CEL | | | | | | | | | X |
| SYNEDRA ULNA | CEL | | | | | | X | | | |
| TABELLARIA FENESTRATA | CEL | | | | | | X | | | X |
| TETRAEDRON MINIMUM v. SCROBICULATUM | CEL | | | X | | | X | | | |
| TETRAEDRON REGULARE | CEL | | | | | | X | | | |
| TRACHELOMONAS | CEL | | | | | | | | | X |
| TOTAL | | | | 2937 | | | 7199 | | | 1267 |

LAKE NAME: NIMROD LAKE
STORET NUMBER: 0512

NYGAARD TROPHIC STATE INDICES

| DATE | 03 27 74 | 06 07 74 | 10 18 74 |
|---|---|---|---|
| MYXOPHYCEAN | 02/0 E | 04/0 E | 04/0 E |
| CHLOROPHYCEAN | 05/0 E | 01/0 E | 06/0 E |
| EUGLENOPHYTE | 0.57 E | 0.80 E | 0/10 ? |
| DIATOM | 1.00 E | 0.80 E | 0.57 E |
| COMPOUND | 14/0 E | 13/0 E | 14/0 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 27 74 | 06 07 74 | 10 18 74 |
|---|---|---|---|
| GENUS | 09 | 01 | 10 |
| SPECIES | 03 | 00 | 04 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 27 74 | 06 07 74 | 10 18 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 1.93 | 3.04 | 3.12 |
| NUMBER OF TAXA | S | 26.00 | 22.00 | 27.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 2.00 | 2.00 | 2.00 |
| MAXIMUM DIVERSITY | MAXH | 4.70 | 4.46 | 4.75 |
| MINUMUM DIVERSITY | MINH | 0.10 | 0.25 | 0.10 |
| TOTAL DIVERSITY | D | 6183.72 | 2927.52 | 11232.00 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 3204.00 | 963.00 | 3600.00 |
| EVENESS COMPONENT | J | 0.41 | 0.68 | 0.66 |
| RELATIVE EVENESS | RJ | 0.40 | 0.67 | 0.65 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 123.23 | 43.77 | 133.33 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 1933.00 | 394.00 | 1296.00 |

LAKE NAME: NIMPOD LAKE
STORET NUMBER: 0512

CONTINUED

| TAXA | FORM | 03 27 74 IS | 03 27 74 EC | 03 27 74 ALGAL UNITS PER ML | 06 07 74 IS | 06 07 74 EC | 06 07 74 ALGAL UNITS PER ML | 10 19 74 IS | 10 19 74 EC | 10 19 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| ACHNANTHES MICROCEPHALA | CEL | | | | | | | | | X |
| ACTINASTRUM | CEL | | | X | | | | | | |
| ANABAENA | FIL | | | X | | | X | | | |
| ANKISTRODESMUS FALCATUS | CEL | 3 | 13.2 | 424 | | | | | | |
| ASTERIONELLA FORMOSA | CEL | | | | | 2.6 | 25 | | | |
| CARTERIA | CEL | | | X | | | | | | |
| CENTRIC DIATOMS | CEL | | 2.9 | 94 | | | | | | |
| CERATIUM HIRUNDINELLA F. FURCOIDES | CEL | | | X | 3 | 2.6 | 25 | | | |
| CHROMONAS ACUTA | CEL | | | X | 5 | 10.3 | 99 | | 3.4 | 121 |
| COELASTRUM SPHAERICUM | COL | | | | | | | | 1.1 | 40 |
| CRYPTOMONAS | CEL | | | X | | | | | | |
| CRYPTOMONAS EROSA | CEL | 2 | 13.2 | 424 | 4 | 5.1 | 49 | 3 | 6.7 | 243 |
| CYCLOTELLA | CEL | | | | | 5.1 | 49 | | 4.5 | 162 |
| DACTYLOCOCCOPSIS | FIL | | | | | 5.1 | 49 | 5 | 12.4 | 445 |
| DICTYOSPHAERIUM PULCHELLUM | COL | | | X | | | | | | |
| EUGLENA | CEL | | | | | 2.6 | 25 | | | |
| EUGLENA #1 | CEL | | | X | | | | | | |
| EUGLENA OXYURIS V. MINOR | CEL | | | | | | X | | | |
| FLAGELLATES | CEL | 11 | 60.3 | 1933 | | | | | | |
| FRAGILARIA CROTONENSIS | CEL | | | | | | | | | X |
| GLENODINIUM OCULATUM | CEL | 5 | 1.5 | 47 | | | | | | |
| HANTZSCHIA | CEL | | | | | | | | | X |
| KIRCHNERIELLA | CEL | | | | | | | | 2.2 | 81 |
| LEPOCINCLIS | CEL | | 1.5 | 47 | | | X | | | |
| MALLOMONAS | CEL | | | | | | | | | X |
| MALLOMONAS PSEUDOCORONATA | CEL | | | | | | | | | X |
| MELOSIRA DISTANS | CEL | | | X | 2 | 10.3 | 99 | 1 | 36.0 | 1296 |
| MELOSIRA GRANULATA | CEL | | | X | 11 | 40.9 | 394 | | 3.4 | 121 |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | | | | X | | | |
| MERISMOPEDIA GLAUCA | COL | | | | | | | | | X |
| MERISMOPEDIA TENUISSIMA | COL | | | | | | X | | | |
| MESOSTIGMA VIRIDIS | CEL | | | | | | | | 3.4 | 121 |
| MICRACTINIUM PUSILLUM | COL | | | | | 2.6 | 25 | | | |
| MICROCYSTIS INCERTA | COL | | | | | | | 2 | 13.5 | 486 |
| MOUGEOTIA | FIL | | | X | | | | | | |
| NAVICULA | CEL | | | | | | | | 3.4 | 121 |
| NITZSCHIA | CEL | | | | | | | | 1.1 | 40 |
| NITZSCHIA #2 | CEL | | | | | | | | | X |
| OSCILLATORIA | FIL | 4 | 2.9 | 94 | | 2.6 | 25 | | | |
| PEDIASTRUM TETRAS V. TETRAODON | COL | | | X | | | | | | |
| PENNATE DIATOM | CEL | | | | | 2.6 | 25 | | | |
| PERIDINIUM | CEL | | | | | | | 4 | 4.5 | 162 |
| PHACUS | CEL | | | X | | | | | | |
| PHORMIDIUM MUCICOLA | FIL | | | | | | | | | X |
| PTEROMONAS | CEL | | | X | | | | | | |
| RHIZOSOLENIA | CEL | | | | | | | | | X |
| SCENEDESMUS BICAUDATUS | COL | | | | | | | | | X |
| SCENEDESMUS DENTICULATUS | COL | | | | | | | | | X |
| SCENEDESMUS PROTUBERANS | COL | | | | | | | | 1.1 | 40 |
| SCENEDESMUS QUADRICAUDA | COL | | | X | | | | | 3.4 | 121 |
| SURIRELLA ANGUSTA | CEL | | | | | | | | | X |
| SYNEDRA ? | CEL | | 2.9 | 94 | | | X | | | |
| SYNEDRA DELICATISSIMA | CEL | | | | | | X | | | |
| SYNEDRA DELICATISSIMA V. ANGUSTISSIMA | CEL | | | X | | | | | | |
| SYNURA ? | CEL | | | | | 5.1 | 49 | | | |
| TABELLARIA FENESTRATA | CEL | | | X | | | X | | | |
| TRACHELOMONAS INTERMEDIA | CEL | | 1.5 | 47 | | 2.6 | 25 | | | |
| TOTAL | | | | 3204 | | | 963 | | | 3400 |

LAKE NAME: NORFORK LAKE
STORET NUMBER: 0513

NYGAARD TROPHIC STATE INDICES

| DATE | 04 04 74 | 06 19 74 | 09 03 74 | 10 10 74 |
|---|---|---|---|---|
| MYXOPHYCEAN | 02/0 E | 0/01 0 | 5.00 E | 06/0 E |
| CHLOROPHYCEAN | 02/0 E | 1.00 E | 2.00 E | 05/0 E |
| EUGLENOPHYTE | 0/04 ? | 0/01 ? | 0.14 ? | 0.09 ? |
| DIATOM | 1.40 E | 1.00 E | 0.17 ? | 0.75 E |
| COMPOUND | 11/0 E | 4.00 E | 9.00 E | 15/0 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 04 04 74 | 06 19 74 | 09 03 74 | 10 10 74 |
|---|---|---|---|---|
| GENUS | 01 | 01 | 10 | 07 |
| SPECIES | 00 | 00 | 00 | 00 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 04 04 74 | 06 19 74 | 09 03 74 | 10 10 74 |
|---|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 2.28 | 2.45 | 3.24 | 3.55 |
| NUMBER OF TAXA | S | 20.00 | 17.00 | 19.00 | 28.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 7.00 | 7.00 | 7.00 | 7.00 |
| MAXIMUM DIVERSITY | MAXH | 4.32 | 4.09 | 4.25 | 4.81 |
| MINUMUM DIVERSITY | MINH | 0.16 | 0.11 | 0.06 | 0.12 |
| TOTAL DIVERSITY | D | 3210.24 | 4304.65 | 13588.56 | 10277.25 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 1408.00 | 1757.00 | 4194.00 | 2895.00 |
| EVENESS COMPONENT | J | 0.53 | 0.60 | 0.76 | 0.74 |
| RELATIVE EVENESS | RJ | 0.51 | 0.59 | 0.76 | 0.74 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 70.40 | 103.35 | 220.74 | 103.39 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 556.00 | 645.00 | 805.00 | 603.00 |

LAKE NAME: NORFORK LAKE
STORET NUMBER: 0513

CONTINUED

| TAXA | FORM | 04 04 74 S | 04 04 74 %C | 04 04 74 ALGAL UNITS PER ML | 06 19 74 S | 06 19 74 %C | 06 19 74 ALGAL UNITS PER ML | 09 03 74 S | 09 03 74 %C | 09 03 74 ALGAL UNITS PER ML | 11 11 74 S | 11 11 74 %C | 11 11 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACHNANTHES MICROCEPHALA | CEL | | | | | | | 5 | 9.6 | 402 | | | X |
| ANABAENA | FIL | | | X | | | | | | | | | |
| ANKISTRODESMUS FALCATUS | CEL | | | | | | | | | | | 1.4 | 43 |
| APHANIZOMENON FLOS-AQUAE | FIL | | | | | | | | | | | | X |
| ASTERIONELLA FORMOSA | CEL | | | X | 2 | 2.0 | 36 | | | | | | |
| CENTRIC DIATOM | CEL | 1 | 5.3 | 74 | | | | | | | | | |
| CERATIUM HIRUNDINELLA F. FURCOIDES | CEL | | | | | | X | | | | | | |
| CERATIUM HIRUNDINELLA F. ROBUSTUM | CEL | | | | 2 | 4.1 | 72 | | | | | | |
| CHROOMONAS ACUTA | CEL | 2 | 39.5 | 556 | | | X | | | | | | |
| Chroomonas acuta ? | CEL | | | | | | | | | | | 4.2 | 121 |
| CLOSTERIUM | CEL | | | | | | X | | | | | | |
| COSMARIUM | CEL | | | | | | | | | X | | | |
| CRUCIGENIA TETRAPEDIA | COL | | | | | | | | | | | 1.4 | 40 |
| CRYPTOMONAS | CEL | | | | | | | | 6.8 | 287 | | | |
| CRYPTOMONAS EROSA | CEL | 4 | 5.3 | 74 | 3 | 6.1 | 137 | | | X | 1 | 11.1 | 322 |
| CRYPTOMONAS MARSSONII | CEL | | | | | 4.1 | 72 | | | | | | |
| CYCLOTELLA | CEL | | | | | 4.1 | 72 | | | | | 1.4 | 40 |
| CYCLOTELLA COMTA | CEL | | | X | | | | | | | | | |
| CYCLOTELLA MICHIGANIANA | CEL | | | X | | | | | | | | | |
| CYCLOTELLA STELLIGERA | CEL | | | X | | | | | | | | | |
| CYMBELLA TUMIDULA | CEL | | | X | | | | | | | | | |
| DACTYLOCOCCOPSIS | CEL | | | | | | | | | | | 8.3 | 241 |
| DIATOMA VULGARE V. BREVE | CEL | | | | | 2.0 | 36 | | | | | | |
| DINOBRYON SOCIALE | CEL | | | | 4 | 34.7 | 609 | | | | | | X |
| ENTOMONEIS ORNATA | CEL | | | X | | | | | | | | | |
| EUGLENA | CEL | | | | | | | | | | | | X |
| FLAGELLATE #2 | CEL | | | | | | X | | | | 2 | 12.5 | 362 |
| FRAGILARIA CROTONENSIS | CEL | 5 | 5.3 | 74 | 1 | 36.7 | 645 | 1 | 19.2 | 805 | 1 | 5.6 | 161 |
| FRANCEIA OVALIS ? | CEL | | | | | | | | | | | | |
| LYNGBYA BIRGEI | FIL | | | | | | | | | X | | | |
| MALLOMONAS | CEL | | | | | | | | | | | | X |
| MALLOMONAS PSEUDOCORONATA | CEL | | | | | | X | | | | | | |
| MELOSIRA DISTANS | CEL | | | | | | | | | | | | X |
| MELOSIRA GRANULATA | CEL | 1 | 29.0 | 408 | | | X | 4 | 8.2 | 345 | | 4.2 | 121 |
| MELOSIRA VARIANS | CEL | | | X | | | | | | | | | |
| MERISMOPEDIA MINIMA | COL | | | | | | | | | | | | X |
| MERISMOPEDIA TENUISSIMA | COL | | | | | | | | | X | | | |
| MICROCYSTIS INCERTA | COL | | | | | | | 3 | 15.1 | 632 | 5 | 20.8 | 603 |
| MOUGEOTIA | CEL | | | | | | | | | | 6 | 6.9 | 201 |
| NAVICULA | CEL | | | X | | | | | | | | | |
| NEPHROCYTIUM | CEL | | | | | | | | 1.4 | 57 | | | |
| NITZSCHIA | CEL | | | | | | | | 15.1 | 632 | | | X |
| NITZSCHIA #1 | CEL | | | | | | | | | X | | | |
| NITZSCHIA #2 | CEL | | | | | | | | 1.4 | 57 | | | |
| NITZSCHIA VERMICULARIS | CEL | | | X | | | | | | | | | |
| OSCILLATORIA | FIL | | | X | | | | | 8.2 | 345 | 1 | 5.6 | 161 |
| PEDIASTRUM SIMPLEX | COL | | | | | | | | | | | | X |
| PEDIASTRUM SIMPLEX V. DUODENARIUM | COL | | | X | | | | | | | | | |
| PERIDINIUM | CEL | | | | | | | | 1.4 | 57 | | | |
| PERIDINIUM #2 | CEL | | | | | | | | | | | | X |
| PERIDINIUM MINUSCULUM | CEL | | | | | | | | | | | | X |
| PERIDINIUM QUADRIDENS | CEL | | | | | 2.0 | 36 | | | | | | |
| PERIDINIUM SPP. | CEL | | | | | | | | | | | 2.8 | 80 |
| PHACUS MEGALOPSIS | CEL | | | | | | | | | X | | | |
| RAPHIDIOPSIS CURVATA | FIL | | | | | | | 2 | 8.2 | 345 | 1 | 6.9 | 201 |
| SCENEDESMUS QUADRICAUDA | COL | | | X | | | | | | | | | |
| SCHROEDERIA SETIGERA | CEL | | | | | 2.0 | 36 | | | | | | |
| STEPHANODISCUS NIAGARAE | CEL | 1 | 5.3 | 74 | 1 | 2.0 | 36 | | | | | | |
| STIPITOCOCCUS | CEL | 1 | 10.5 | 148 | | | | | | | | | |
| SYNEDRA ACUS | CEL | | | | | | | | | X | | | |
| TABELLARIA FENESTRATA | CEL | | | | | | | | | | | | X |
| TETRAEDRON MINIMUM V. SCROBICULATUM | CEL | | | | | | | | 5.6 | 230 | 1 | 6.9 | 201 |
| TOTAL | | | | 1408 | | | 1757 | | | 4194 | | | 2895 |

LAKE NAME: LAKE OUACHITA
STORET NUMBER: 0514

NYGAARD TROPHIC STATE INDICES

| DATE | 03 25 74 | 06 06 74 | 10 17 74 |
|---|---|---|---|
| MYXOPHYCEAN | 0/0 D | 1.00 E | 7.00 E |
| CHLOROPHYCEAN | 03/0 E | 0.67 ? | 2.00 E |
| EUGLENOPHYTE | 3/03 ? | 3.40 E | 3/39 ? |
| DIATOM | 2.00 E | 0.50 E | 0/03 ? |
| COMPOUND | 07/0 E | 3.00 E | 9.00 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 25 74 | 06 06 74 | 10 17 74 |
|---|---|---|---|
| GENUS | 00 | 01 | 01 |
| SPECIES | 00 | 00 | 00 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| DATE | | 03 25 74 | 06 06 74 | 10 17 74 |
|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 1.47 | 2.71 | 3.44 |
| NUMBER OF TAXA | S | 12.00 | 20.00 | 21.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 6.00 | 6.00 | 6.00 |
| MAXIMUM DIVERSITY | MAXH | 3.58 | 4.32 | 4.39 |
| MINUMUM DIVERSITY | MINH | 0.46 | 0.08 | 0.14 |
| TOTAL DIVERSITY | D | 323.40 | 8176.07 | 5841.12 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 220.00 | 3017.00 | 1698.00 |
| EVENESS COMPONENT | J | 0.41 | 0.63 | 0.78 |
| RELATIVE EVENESS | RJ | 0.33 | 0.63 | 0.78 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 18.33 | 150.85 | 80.86 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 110.00 | 797.00 | 266.00 |

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LAKE NAME: LAKE OUACHITA
STORET NUMBER: 3914

CONTINUED

| TAXA | FORM | 01 25 74 IS | 01 25 74 SC | 01 25 74 ALGAL UNITS PER ML | 06 06 74 IS | 06 06 74 SC | 06 06 74 ALGAL UNITS PER ML | 10 17 74 IS | 10 17 74 SC | 10 17 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|
| ANABAENA PLANCTONICA | FIL | | | | | | X | 11 | 5.0 | 133 |
| ANKISTRODESMUS FALCATUS | CEL | | | X | | | | | | |
| ANKISTRODESMUS FALCATUS V. MIRABILIS | CEL | | | X | | | | | | |
| APHANIZOMENON FLOS-AQUAE | FIL | | | | | | X | 2 | 11.0 | 300 |
| ARTHRODESMUS MINOR ? | CEL | | | | | 1.2 | 35 | | | |
| ASTERIONELLA FORMOSA | CEL | | | | | 5.4 | 134 | | | X |
| CENTRIC DIATOM | CEL | 3 | 16.8 | 37 | | | | | | |
| CEPATIUM HIRUNDINELLA F. FURCOIDES | CEL | | | | | 1.2 | 35 | | | |
| CHROOMONAS ACUTA | CEL | 2 | 33.2 | 73 | 4 | 23.0 | 693 | | 13.7 | 233 |
| CLOSTERIOPSIS | CEL | | | X | | | | | | |
| CLOSTERIUM | CEL | | | | | | | | | X |
| CRYPTOMONAS EROSA | CEL | 1 | 50.0 | 110 | | 1.2 | 35 | 1 | 7.0 | 133 |
| CRYPTOMONAS MARSSONII | CEL | | | | | | | | | X |
| DACTYLOCOCCOPSIS | CEL | | | | | | | | 11.0 | 300 |
| DINOBRYON | CEL | | | | | | | | 3.0 | 67 |
| EUASTRUM DENTICULATUM | CEL | | | | | | X | | | |
| FLAGELLATE #2 | CEL | | | | | | | | 5.0 | 100 |
| FRAGILARIA CROTONENSIS | CEL | | | X | 2 | 26.4 | 797 | | | X |
| GYMNODINIUM ALBULUM | CEL | | | X | | | | | | |
| LYNGBYA | FIL | | | | | | | 3 | 15.7 | 266 |
| MALLOMONAS | CEL | | | | | | | | | X |
| MALLOMONAS PSEUDOCORONATA | CEL | | | | | | | | | V |
| MELOSIRA DISTANS | CEL | | | X | 5 | 13.8 | 416 | | | |
| MELOSIRA GRANULATA | CEL | | | X | 3 | 10.3 | 312 | | | |
| NEPHROPEDIA TENUISSIMA | COL | | | | | | | | 1.0 | 33 |
| MICROCYSTIS INCERTA | COL | | | | | | | | 9.0 | 167 |
| NOSTOCYTIA | FIL | | | | | | X | | | |
| OSCILLATORIA | FIL | | | | | | X | | | |
| OSCILLATORIA #1 | FIL | | | | | | | | | X |
| PECTASTRUM BIRADIATUM V. LONGECORNUTUM | COL | | | | | 1.2 | 35 | | | |
| PERIDINIUM QUADRIDENS | CEL | | | | | | | 4 | 7.8 | 133 |
| SCENEDESMUS QUADRICAUDA | COL | | | | | 1.2 | 35 | | | |
| SKELETONEMA POTAMOS | CEL | | | X | | | | | | |
| STAURASTRUM CUSPIDATUM ? | CEL | | | | | | X | | | |
| SURIRELLA | CEL | | | | | | | | | X |
| SYNEDRA | CEL | | | | | | X | | | |
| TABELLARIA FENESTRATA | CEL | | | X | 11 | 17.2 | 520 | | | |
| TETRAEDRON CAUDATUM | CEL | | | | | | | | 1.0 | 33 |
| TETRAEDRON MINIMUM V. SCROBICULATUM | CEL | | | | | | | | 1.0 | 33 |
| TRACHELOMONAS | CEL | | | | | | X | | | |
| TRACHELOMONAS INTERMEDIA | CEL | | | | | | X | | | |
| TOTAL | | | | 220 | | | 3317 | | | 1498 |

LAKE NAME: TABLE ROCK LAKE
STORET NUMBER: 0515

NYGAARD TROPHIC STATE INDICES

| DATE | 04 05 74 | 06 18 74 | 09 04 74 | 10 10 74 |
|---|---|---|---|---|
| MYXOPHYCEAN | 03/0 E | 05/0 E | 1.00 E | 1.50 E |
| CHLOROPHYCEAN | 01/0 E | 06/0 E | 2.67 E | 1.00 E |
| EUGLENOPHYTE | 0/04 ? | 0/11 ? | 0.09 ? | 0.60 E |
| DIATOM | 1.20 E | 1.33 E | 1.50 E | 0.40 E |
| COMPOUND | 10/0 E | 15/0 E | 5.00 E | 5.00 E |

PALMER'S ORGANIC POLLUTION INDICES

| DATE | 04 05 74 | 06 18 74 | 09 04 74 | 10 10 74 |
|---|---|---|---|---|
| GENUS | 06 | 03 | 05 | 09 |
| SPECIES | 00 | 00 | 00 | 00 |

SPECIES DIVERSITY AND ABUNDANCE INDICES

| | DATE | 04 05 74 | 06 18 74 | 09 04 74 | 10 10 74 |
|---|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 2.89 | 3.49 | 1.29 | 1.01 |
| NUMBER OF TAXA | S | 19.00 | 29.00 | 26.00 | 24.00 |
| NUMBER OF SAMPLES COMPOSITED | N | 9.00 | 9.00 | 9.00 | 9.00 |
| MAXIMUM DIVERSITY | MAXH | 4.25 | 4.86 | 4.70 | 4.58 |
| MINUMUM DIVERSITY | MINH | 0.37 | 0.21 | 0.02 | 0.02 |
| TOTAL DIVERSITY | D | 9554.34 | 5528.16 | 28796.67 | 16806.40 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 3306.00 | 1584.00 | 22323.00 | 16640.00 |
| EVENESS COMPONENT | J | 0.68 | 0.72 | 0.27 | 0.22 |
| RELATIVE EVENESS | RJ | 0.68 | 0.71 | 0.28 | 0.22 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 174.00 | 54.62 | 858.58 | 693.33 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 882.00 | 264.00 | 17906.00 | 13893.00 |

LAKE NAME: TABLE ROCK LAKE CONTINUED
STORET NUMBER: 0915

| TAXA | FORM | 34 35 74 IS | 34 35 74 %C | 34 35 74 ALGAL UNITS PER ML | 36 18 74 IS | 36 18 74 %C | 36 18 74 ALGAL UNITS PER ML | 39 34 74 IS | 39 34 74 %C | 39 34 74 ALGAL UNITS PER ML | 10 10 74 IS | 10 10 74 %C | 10 10 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACHNANTHES MICROCEPHALA | CEL | | | | | 2.1 | 33 | 1 | 0.2 | 1700 | 1 | 93.4 | 15809 |
| ANABAENA | FIL | | | X | | | | | | | | | |
| ANKISTRODESMUS | CEL | | | | | 8.3 | 132 | | | | | | |
| APHANIZOMENON | FIL | | | | 3 | 8.3 | 132 | | | | | | |
| ASTERIONELLA FORMOSA | CEL | | | X | | | | | | | | | |
| CENTRIC DIATOM | CEL | | 7.8 | 257 | | | | 5 | 3.0 | 470 | | | |
| CERATIUM HIRUNDINELLA | CEL | | | | | | X | | | | | | |
| CERATIUM HIRUNDINELLA F. BRACHYCERAS | CEL | | | | | | X | | | X | | | X |
| CERATIUM HIRUNDINELLA F. FURCOIDES | CEL | | | | | | X | | | | | | |
| CHROMOMONAS ACUTA | CEL | 5 | 6.7 | 220 | | 16.7 | 264 | | 1.7 | 388 | | 1.7 | 191 |
| COELASTRUM SPHAERICUM | COL | | | | | | X | | 0.2 | 40 | | | |
| COSMARIUM #1 | CEL | | | | | | | | 0.4 | 97 | | | |
| COSMARIUM #2 | CEL | | | | | | | | | X | | | X |
| CRUCIGENIA QUADRATA | COL | | | | | | | | | X | | | |
| CRYPTOMONAS | CEL | | | | 1 | 12.5 | 198 | | 0.7 | 146 | 2 | 1.4 | 232 |
| CRYPTOMONAS EROSA | CEL | 4 | 2.2 | 73 | | | | | | | | | |
| CYCLOTELLA STELLIGERA | CEL | | | | | | X | | | | | | X |
| DACTYLOCOCCOPSIS | CEL | | | | | | | | | | 5 | 8.4 | 1385 |
| DINOBRYON SOCIALE | CEL | | | | | 2.1 | 33 | | | X | | | |
| FRAGILARIA | CEL | | | | | | | | | | | | X |
| FRAGILARIA CROTONENSIS | CEL | 3 | 23.3 | 771 | | 4.2 | 66 | | | | | | X |
| GLENODINIUM | CEL | | | | | | | | | X | | | |
| GLENODINIUM GYMNODINIUM | CEL | | | | | | X | | | | | | |
| GLENODINIUM QUADRIDEN | CEL | | | | 2 | 4.2 | 66 | | | X | | | X |
| GYMNODINIUM | CEL | | 1.1 | 37 | | | | | | | | | |
| KIRCHNERIELLA | CEL | | | | | | | | | X | | | |
| MALLOMONAS | CEL | | | | | 2.1 | 33 | | | | | | |
| MELOSIRA | CEL | | | X | | | | | | | | | |
| MELOSIRA DISTANS | CEL | | 3.3 | 110 | | 4.2 | 66 | | | X | | | X |
| MELOSIRA GRANULATA | CEL | 1 | 26.7 | 882 | | | | | | | | | |
| MELOSIRA ITALICA | CEL | | | | | 2.1 | 33 | | | | | | |
| MELOSIRA VARIANS | CEL | | | X | | | | | | | | | |
| MERISMOPEDIA MINIMA | COL | | | | | 2.1 | 33 | | | | | | |
| MERISMOPEDIA TENUISSIMA | COL | | | | | | | | 0.4 | 97 | | | |
| MESOSTIGMA VIRIDIS | CEL | | | | | | | | | | | | X |
| MOUGEOTIA | FIL | | | | 4 | 14.6 | 231 | | | | | | X |
| NITZSCHIA | CEL | | 1.1 | 37 | | | | | | | | 0.2 | 39 |
| OSCILLATORIA LACUSTRIS | FIL | | | X | | | | | | | | | |
| OSCILLATORIA LIMNETICA | FIL | | 3.3 | 110 | | | X | 4 | 1.1 | 263 | 4 | 0.9 | 155 |
| PEDIASTRUM SIMPLEX | COL | | | | | | | | 0.2 | 40 | | | |
| PEDIASTRUM SIMPLEX V. DUODENARIUM | COL | | | | | | X | | | | | | |
| PENNATE DIATOM | CEL | | 1.1 | 37 | | | | | | | | | |
| PENNATE DIATOM #1 | CEL | | | | | | | 3 | 2.6 | 582 | | | |
| PERIDINIUM #1 | CEL | | | | | | X | | | | | | |
| PERIDINIUM #2 | CEL | | 1.1 | 37 | | | | | | | | | |
| PERIDINIUM INCONSPICUUM | CEL | | | | | | | | | | | | X |
| PHACUS | CE | | | | | | | | | X | | | X |
| RAPHIDIOPSIS CURVATA | FIL | | | | | | X | 2 | 7.2 | 1601 | 1 | 0.9 | 155 |
| SCENEDESMUS | COL | | | | | | X | | | | | | |
| SCENEDESMUS ABUNDANS | COL | | | | | | | | | | | 3.5 | 77 |
| SCENEDESMUS BICAUDATUS | COL | | | | | | | | 0.2 | 40 | | | |
| SCENEDESMUS QUADRICAUDA V. QUADRISPINA F. SPINOSUS | COL | | 1.1 | 37 | | | | | | | | | |
| SCHROEDERIA SETIGERA | CEL | | | | | | X | | 0.2 | 40 | | | |
| SCYTONEMA | FIL | | | | | | X | | | | | | |
| STAURASTRUM | CEL | | | | | | | | | | | | X |
| STAURASTRUM TETRACERUM | CEL | | | | | | | | | X | | | |
| STEPHANODISCUS | CEL | | | | | 2.1 | 33 | | | X | | | |
| STEPHANODISCUS NIAGARAE | CEL | 2 | 20.0 | 661 | | | | | | | | | |
| SYNEDRA | CEL | | | | | | | | | | | | X |
| SYNEDRA DELICATISSIMA V. ANGUSTISSIMA | CEL | | 1.1 | 37 | | | X | | | | | | |
| TETRAEDRON MINIMUM V. SPHOBICULATUM | CEL | | | | 5 | 14.6 | 231 | | 1.7 | 388 | 3 | 3.0 | 503 |
| TRACHELOMONAS #1 | CEL | | | | | | | | | | | | X |
| TRACHELOMONAS #2 | CEL | | | | | | | | | | | | X |
| TREUBARIA SETIGERUM | CEL | | | | | | | | | X | | | |
| TOTAL | | | | 3306 | | | 1584 | | | 22923 | | | 16640 |

LAKE NAME: GREER'S FERRY LAKE
STORET NUMBER: 0516

## NYGAARD TROPHIC STATE INDICES

| DATE | 03 27 74 | 06 06 74 | 09 03 74 | 10 16 74 |
|---|---|---|---|---|
| MYXOPHYCEAN | 2.50 E | 3.00 E | 1.33 E | 1.33 E |
| CHLOROPHYCEAN | 2.50 E | 3.00 E | 1.00 E | 1.33 E |
| EUGLENOPHYTE | 0.20 ? | 0/06 ? | 0/07 ? | 0.25 E |
| DIATOM | 0.43 E | 0.75 E | 3/32 ? | 1.00 E |
| COMPOUND | 7.50 E | 9.00 E | 2.33 E | 4.33 E |

## PALMER'S ORGANIC POLLUTION INDICES

| DATE | 03 27 74 | 06 06 74 | 09 03 74 | 10 16 74 |
|---|---|---|---|---|
| GENUS | 04 | 04 | 01 | 01 |
| SPECIES | 00 | 00 | 00 | 00 |

## SPECIES DIVERSITY AND ABUNDANCE INDICES

| | | DATE 03 27 74 | 06 06 74 | 09 03 74 | 10 16 74 |
|---|---|---|---|---|---|
| AVERAGE DIVERSITY | H | 3.35 | 2.29 | 1.80 | 2.37 |
| NUMBER OF TAXA | S | 29.00 | 19.00 | 17.00 | 23.00 |
| NUMBER OF SAMPLES COMPOSITED | M | 4.00 | 4.00 | 4.00 | 4.00 |
| MAXIMUM DIVERSITY | MAXH | 4.86 | 4.25 | 4.09 | 4.52 |
| MINUMUM DIVERSITY | MINH | 0.14 | 0.08 | 0.05 | 0.15 |
| TOTAL DIVERSITY | D | 8291.25 | 6666.19 | 7941.60 | 4268.37 |
| TOTAL NUMBER OF INDIVIDUALS/ML | N | 2475.00 | 2911.00 | 4412.00 | 1801.00 |
| EVENESS COMPONENT | J | 0.69 | 0.54 | 0.44 | 0.52 |
| RELATIVE EVENESS | RJ | 0.69 | 0.53 | 0.44 | 0.51 |
| MEAN NUMBER OF INDIVIDUALS/TAXA | L | 85.34 | 153.21 | 259.53 | 78.30 |
| NUMBER/ML OF MOST ABUNDANT TAXON | K | 500.00 | 1579.00 | 3098.00 | 678.00 |

LAKE NAME: GREER'S FERRY LAKE CONTINUED
STORET NUMBER: 0514

| TAXA | FORM | 03 27 74 IS | 03 27 74 SC | 03 27 74 ALGAL UNITS PER ML | 06 06 74 IS | 06 06 74 SC | 06 06 74 ALGAL UNITS PER ML | 09 03 74 IS | 09 03 74 SC | 09 03 74 ALGAL UNITS PER ML | 10 16 74 IS | 10 16 74 SC | 10 16 74 ALGAL UNITS PER ML |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANABAENA PLANCTONICA | FIL | | | X | | | | | | | | | |
| ANABAENOPSIS | FIL | | | | | | | | | | | | X |
| APHANIZOMENON | FIL | | | X | | | | | | | | | |
| APHANIZOMENON FLOS-AQUAE | FIL | | | | | | | | 1.4 | 62 | | | X |
| ASTERIONELLA FORMOSA | CEL | | 3.9 | 75 | | | | | | | | | |
| CENTRIC DIATOM | CEL | | | | | | | | | | 1 | 2.2 | 30 |
| CERATIUM HIRUNDINELLA | CEL | | | | | | X | | | | | | |
| CERATIUM HIRUNDINELLA F. FURCOIDES | CEL | | | | 2 | 1.4 | 40 | | | | | | X |
| CHROOMONAS ACUTA | CEL | 1 | 20.2 | 500 | 1 | 6.9 | 202 | 2 | 7.1 | 317 | | | |
| COELASTRUM MICROPORUM | COL | | | | 1 | 1.4 | 40 | | | | | | |
| COSMARIUM | CEL | | | | | | | | | | | 2.2 | 30 |
| CRUCIGENIA TETRAPEDIA | COL | | | X | | | X | | | | | | |
| CRYPTOMONAS | CEL | | | | | | | | | | | | X |
| CRYPTOMONAS EROSA | CEL | 2 | 14.1 | 350 | 5 | 6.9 | 202 | 4 | 4.3 | 188 | | | |
| CYMBELLA | CEL | | | X | | | | | | | | | |
| DACTYLOCOCCOPSIS | CEL | | 2.0 | 50 | | | | | | | | 1.2 | 66 |
| DESMID | CEL | | | X | | | | | | | | | |
| EUGLENA | CEL | | | X | | | | | | | | | X |
| FLAGELLATE | CEL | | | | | | | | 2.9 | 129 | | | |
| FLAGELLATE #2 | CEL | | 9.1 | 225 | | | | | | | | | |
| FRAGILARIA CROTONENSIS | CEL | | 2.0 | 50 | 3 | 4.2 | 121 | | | | | | X |
| FRANCEIA | CEL | | | | | | | | | X | | | |
| GLOEOCYSTIS | COL | | | | | | X | | | | | | |
| GOMPHONEMA GRACILE | CEL | | | X | | | | | | | | | |
| GYMNODINIUM ALBULUM | CEL | | 1.0 | 25 | | | | | | | | | |
| LEPOCINCLIS | CEL | | | | | | | | | | | | X |
| LYNGBYA | FIL | | | | | | | 1 | 70.2 | 1099 | 4 | 37.4 | 678 |
| LYNGBYA #1 | FIL | | | | | 1.4 | 40 | | | | | | |
| LYNGBYA #2 | FIL | | | | | 1.4 | 40 | | | | | | |
| MALLOMONAS | CEL | | | | | | | | 0.7 | 31 | | | |
| MALLOMONAS ACAROIDES | CEL | | | | | | | | | | | | X |
| MELOSIRA DISTANS | CEL | 3 | 18.2 | 450 | 4 | 16.7 | 486 | | | | 3 | 6.4 | 116 |
| MELOSIRA GRANULATA | CEL | | 2.0 | 50 | | | | | | | 2 | 9.7 | 176 |
| MELOSIRA GRANULATA V. ANGUSTISSIMA | CEL | | | | | | X | | | | | | |
| MERISMOPEDIA GLAUCA | COL | | 2.0 | 50 | | | | | | | | | |
| MERISMOPEDIA PUNCTATA | COL | | | X | | | | | | | | | |
| MERISMOPEDIA TENUISSIMA | COL | | | | | 1.4 | 40 | | | | | | |
| MICROCYSTIS INCERTA | COL | | | | | | | 3 | 5.0 | 219 | | | |
| NEPHROCYTIUM | CEL | | 4.0 | 100 | | | | | 1.4 | 62 | | | |
| NITZSCHIA | CEL | | | | | 2.8 | 81 | | | X | | | |
| NITZSCHIA #1 | CEL | | 4.0 | 100 | | | | | | | | | |
| NITZSCHIA #2 | CEL | | | X | | | | | | | | | |
| OOCYSTIS | COL | | | | | 1.4 | 40 | | | | | | |
| OSCILLATORIA | FIL | | | | | | | | 0.7 | 31 | | | |
| PEDIASTRUM BIRADIATUM V. LONGECORNUTUM | COL | | | | | | | | | | | | X |
| PERIDINIUM ? | CEL | | | | | | | | | | | | X |
| PERIDINIUM PUSILLUM ? | CEL | | | | | | | | 2.9 | 129 | | | |
| PERIDINIUM UMBONATUM | CEL | | | X | | | | | | | | | |
| SCENEDESMUS DENTICULATUS | COL | | 1.0 | 25 | | | | | | | | | |
| SCENEDESMUS DIMORPHUS | COL | | | | | | | | | | | | X |
| SKELETONEMA POTAMOS | CEL | 5 | 13.1 | 325 | | | X | | | | | | |
| STAURASTRUM | CEL | | | | | | | | 0.7 | 31 | | | |
| STAURASTRUM #1 | CEL | | | | | | | | | X | | 1.1 | 19 |
| STAURASTRUM #2 | CEL | | | X | | | | | | | | | |
| STAURASTRUM #3 | CEL | | | | | | X | | | | | | |
| STAURASTRUM TETRACERUM | CEL | | | | | | | | | X | | 2.2 | 39 |
| SUIRELLA | CEL | | | | | | X | | | | | | |
| SYNEDRA DELICATISSIMA V. ANGUSTISSIMA | CEL | | | | | | | | | | | | X |
| TABELLARIA FENESTRATA | CEL | 4 | 3.0 | 75 | 1 | 54.2 | 1579 | 5 | 7.8 | 329 | 3 | 33.4 | 611 |
| TETRAEDRON | CEL | | 1.0 | 25 | | | | | | | | | |
| TETRAEDRON CAUDATUM | CEL | | | | | | | | | X | | 1.1 | 19 |
| TETRAEDRON MINIMUM | CEL | | | | | | | | | | | 1.1 | 19 |
| TETRAEDRON MINIMUM V. SCROBICULATUM | CEL | | | X | | | | | | | | | |
| TRACHELOMONAS HISPIDA | CEL | | | X | | | | | | | | | |
| TOTAL | | | | 2475 | | | 2911 | | | 4412 | | | 1831 |